KENW-03486

MIDI COMPACT AUDIO SYSTEM

MIDI M-26
MIDI M-363

INSTRUCTION MANUAL

KENWOOD CORPORATION

KENWOOD

B60-0697-00 (JA) (SI) (M, X, E, T, Y) [MC]

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.
We appreciate your patronage and take pride in the long tradition of quality components that our company represents.
So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start.
You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.
Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.
Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.
Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

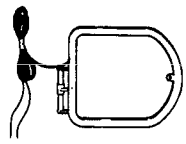
When your unit needs to be repaired, bring the entire set (Speakers excluded) to your dealer.

WARNING NOTICE:

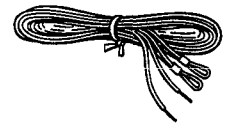
IN MOST CASES IT IS AN INFRINGEMENT OF COPYRIGHT TO MAKE COPIES OF TAPES OR DISCS WITHOUT THE PERMISSION OF THE COPYRIGHT OWNERS. ANYONE WISHING TO COPY COMMERCIALLY AVAILABLE TAPES OR DISCS SHOULD CONTACT THE MECHANICAL COPYRIGHT PROTECTION SOCIETY LIMITED OR THE PERFORMING RIGHTS SOCIETY LIMITED.

Accessories

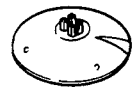
- AM (MW, LW) loop antenna 1



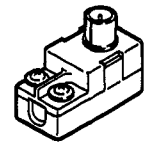
- FM indoor antenna 1



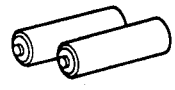
- Loop antenna stand.... 1



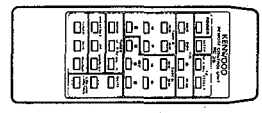
- Antenna adaptor (75 Ω/300 Ω) ..... 1 (M-26 only)



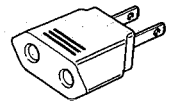
- Batteries (R03/AAA) 2



- Remote control unit.... 1



- AC plug adaptor..... 1 (Except for some areas)



For the unit with a European AC plug in areas other than Europe.

Contents

Caution: Read the pages marked ⚠ carefully to ensure safe operation.

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Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

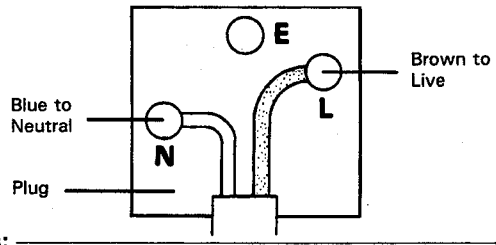
The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this mains lead are coloured in accordance with the following code:

Blue ..... Neutral
Brown ..... Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	**Plug terminal marking**
Blue	N or Black
Brown	L or Red



Notes:

1. If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 230 V AC only.

For other countries

Important!

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

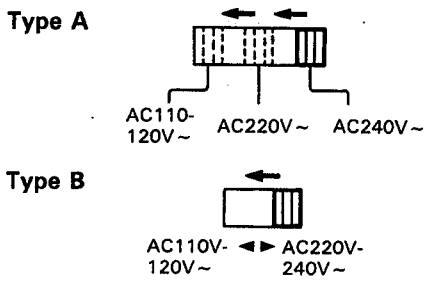
AC voltage selection

This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch Type A or Type B on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

AC voltage selector switch



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Safety precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

IMPORTANT SAFEGUARDS

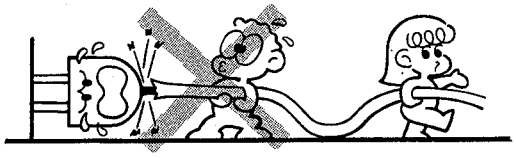
⚠ Caution : Read this page carefully to ensure safe operation.

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** — The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

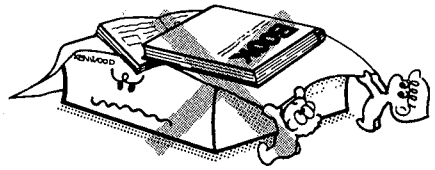
2. **Power-cord protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

Never pull or stretch the cord.

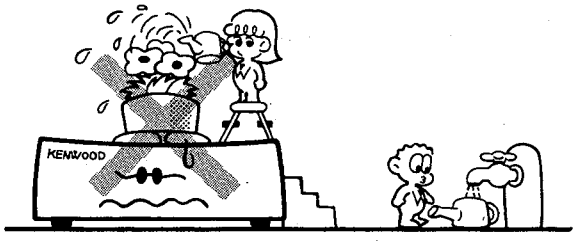


3. **Grounding or polarization** — The precautions should be taken so that the grounding or polarization means of this unit is not defeated.

4. **Ventilation** — The unit should be situated so that its location or position does not interfere with its proper ventilation.
To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.
Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.

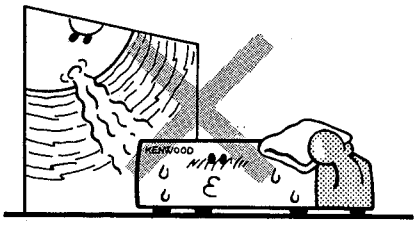


5. **Water and moisture** — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

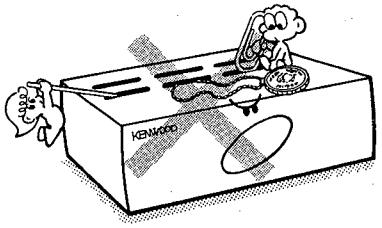


6. **Temperature** — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

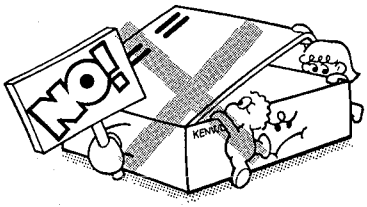
7. **Heat** — The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



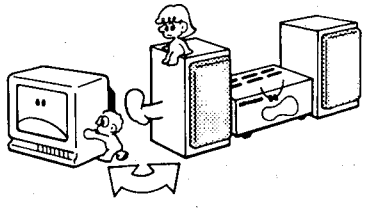
8. **Electric shock** — Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



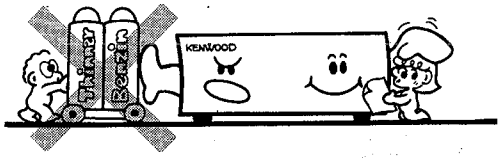
9. **Enclosure removal** — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. **Magnetic fields** — Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.



11. **Cleaning** — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

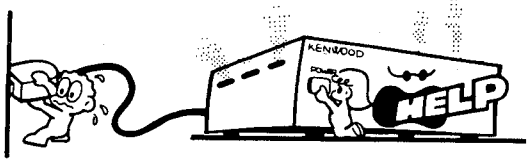


12. **Carts and stands** — An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

13. **Nonuse periods** — The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.

14. **Abnormal smell** — If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.

POWER OFF!

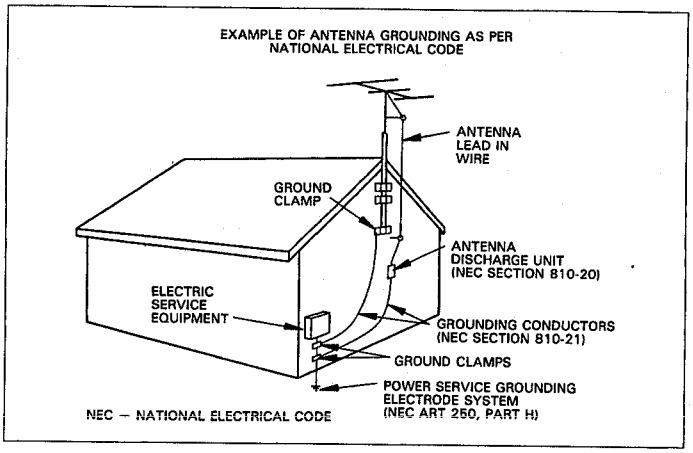


15. **Damage requiring service** — The unit should be serviced by qualified service personnel when:

A. The power-supply cord or the plug has been damaged; or
B. Objects have fallen, or liquid has been spilled into the unit; or
C. The unit has been exposed to rain; or
D. The unit does not appear to operate normally or exhibits a marked change in performance; or
E. The unit has been dropped, or the enclosure damaged.

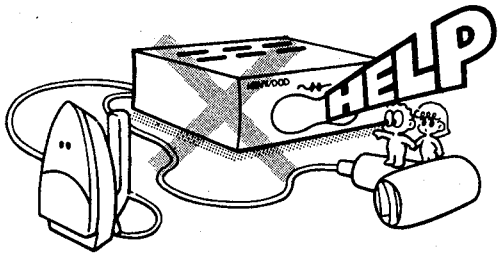
16. **Servicing** — The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

17. **Outdoor antenna grounding** — If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.


EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE
ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)
NEC – NATIONAL ELECTRICAL CODE

18. **Power lines** — An outdoor antenna should be located away from power lines.

19. **AC outlets** — Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.

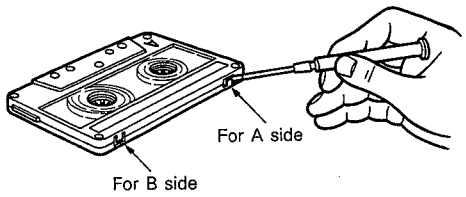


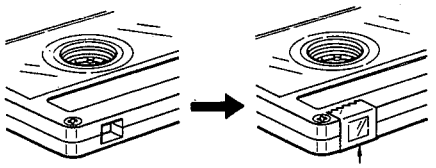
Notes:
1. Item 3 is not required except for grounded or polarized equipment.
2. Item 17 and 18 are not required except for units provided with antenna terminals.
3. Item 17 complies with UL in the U.S.A.

Before operation

Notes on cassette tape

Safety tab (accidental erasure prevention tab)
After an important recording has been finished, break the safety tab, to prevent the recorded contents from being erased or recorded on accidentally.

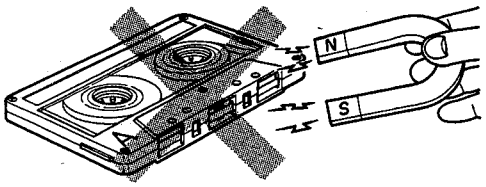




To re-record Cover with adhesive tape.

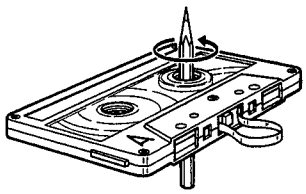
To store cassette tapes

Do not store the tapes in a place which is subject to direct sunlight, or near equipment that generates heat. Keep the cassette tapes away from any magnetic field.



When there is slack in the tape

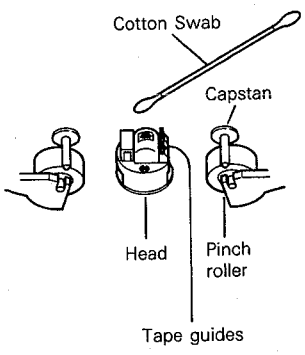
In such a case, insert a pencil into the reel hole and wind the reel hub to remove the slack.



Notes:

1. 120-minute cassette tape
   Since a 120-minute cassette tape is very thin, the tape could adhere to the pinch roller or be easily cut. It is recommended that these tapes not be used with this unit to prevent possible damage.
2. Endless tapes
   Do not use an endless tape, as this could damage the mechanism of the unit.

Cleaning the head section



Cleaning the heads and peripheral components

For maintaining the best condition of the deck and for longer service life, always keep the head (recording/playback/erase), capstan and pinch roller clean. To clean them, perform the following:

1. Open the cassette holder.
2. Using a cotton swab dipped in alcohol, clean the head (recording/playback/erase), capstan and pinch roller carefully.

Demagnetizing the head

When the recording/playback head is magnetized, the sound quality will be deteriorated. In such a case, demagnetize the head using a commercially available demagnetizer (head eraser).

Note:
There are precisely aligned parts around the heads, including the tape guides.
When cleaning, pay special attention so as not to apply shock to them.

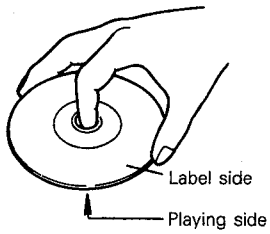
Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced.
If condensation occurs, correct operation may not be possible, or the unit may not function correctly.
This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:

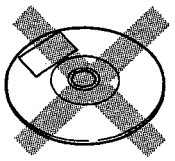
- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

Disc handling precautions

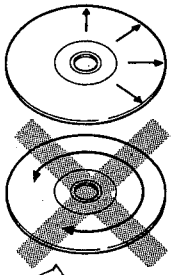


Handling

Hold compact discs so that you do not touch the playing surface.

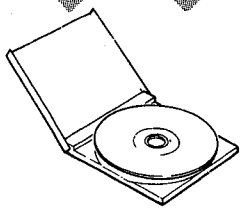


Do not attach paper or tape to either the playing side or the label side of compact discs.



Cleaning

If fingerprints or foreign matter become attached to the disc, lightly wipe the disc with a soft cotton cloth (or similar) from the center of the disc outwards in a radial manner.



Storage

When a disc not to be played for a long period of time, remove it from the CD player and store it in its case.

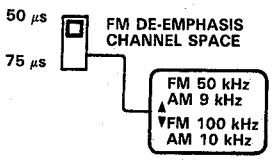
Memory backup function

Stored contents cleared immediately when power plug is unplugged from power outlet	Clock of tuner Cassette deck (Direction and recording level)
Stored contents cleared in at least 3 days after power plug is unplugged from power outlet	Preset stations of tuner Graphic equalizer (Stored patterns)

FM DE-EMPHASIS/CHANNEL SPACE switch (Except for some areas)

The FM DE-EMPHASIS/CHANNEL SPACE switch on the rear panel set to the correct setting that prevails in the area to which the unit is shipped. However, if the FM DE-EMPHASIS/CHANNEL SPACE setting is not matched to the area where the unit is to be used: for instance, when you move from area 1 to area 2 or vice versa, desired reception of AM/FM broadcasts is not expected. In this case, change the FM DE-EMPHASIS/CHANNEL SPACE setting in accordance with the area corresponding to the table shown below. The FM DE-EMPHASIS is switched over at the same time.

Note:
When changing the setting of the FM DE-EMPHASIS/CHANNEL SPACE switch, first disconnect the power cord, then reset the FM DE-EMPHASIS/CHANNEL SPACE switch, connect the power cord again, and turn the power on.



	Area	CHANNEL SPACE freq.	FM DE-EMPHASIS
1.	U.S.A, Canada, Hawaii, South american countries	FM: 100 kHz AM: 10 kHz	75 μs
2.	Other countries	FM: 50 kHz AM: 9 kHz	50 μs

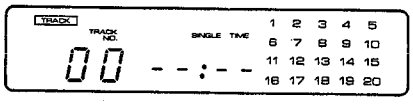
Caution after transport or carriage of the CD player

When the CD player was transported or carriage to another place, please perform the following operation to check it.

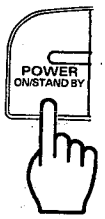
1. Turn the power ON without putting a disc in the unit.

POWER key of the amplifier

2. Wait several seconds, and check that the display shown below.



3. Turn the power OFF.

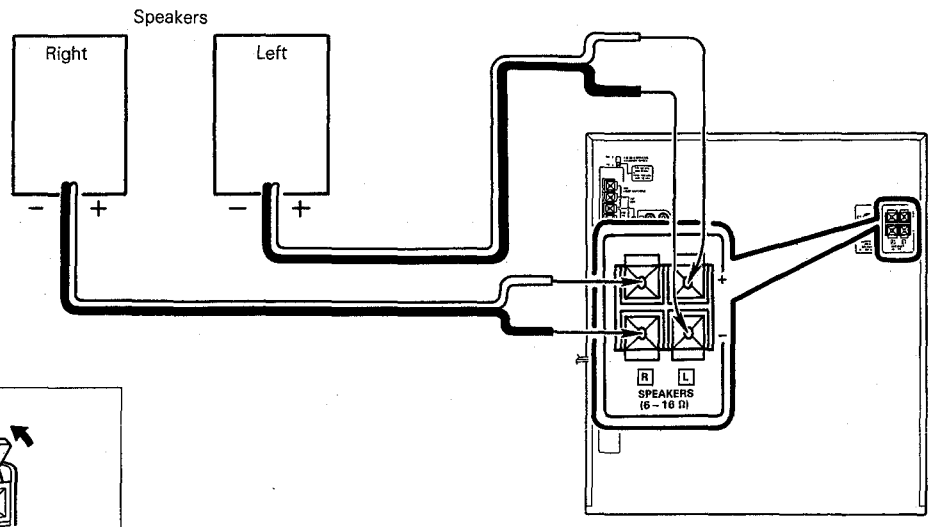


POWER key of the amplifier

System connections

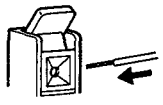
Do not plug in the power lead until all connections are completed.

■ Connection of speakers

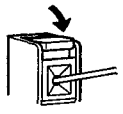


① Push the lever.

② Insert the cord.

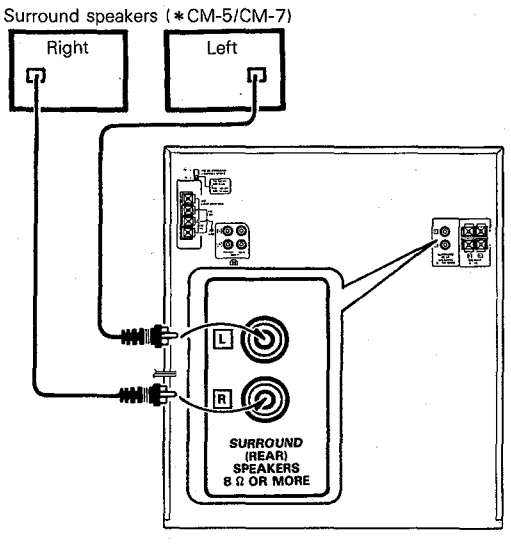


③ Return the lever.



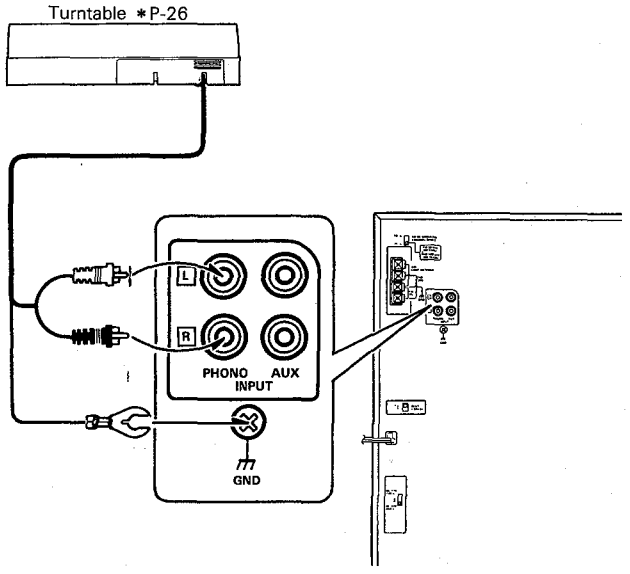
- Never short-circuit the + and - speaker cords.
- If the left and right speakers are connected inversely or if the speaker cords are connected with reversed polarity, the sound becomes unnatural with ambiguous acoustic image positioning. Be sure to connect the speakers and speaker cords correctly.
- Be sure to use 8 ~ 16 Ω speakers for the M-26 and 6 ~ 16 Ω speakers for the M-363.
- Connect the Left channel speaker to the L SPEAKERS terminals, and Right channel speaker to the R SPEAKERS terminals.

■ Connection of surround speakers (M-363 only)



- Be sure to connect both surround speakers. If only one surround speaker is connected, surround cannot be heard.

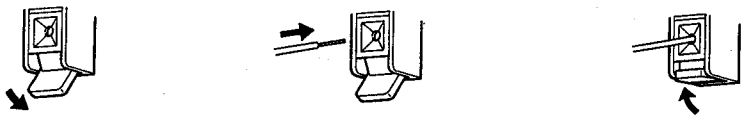
■ Connection of turntable (optional)



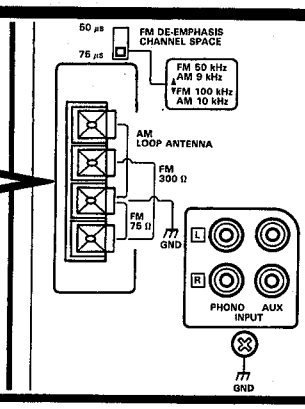
*** IMPORTANT**
This option may not be available in some areas. For details on options, consult your dealer.

Connection method to each antenna terminal

① Push lever down. ② Insert conductor. ③ Return lever up.

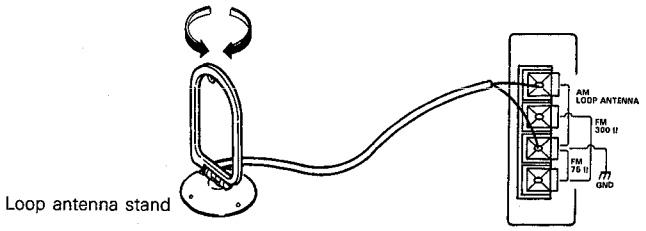


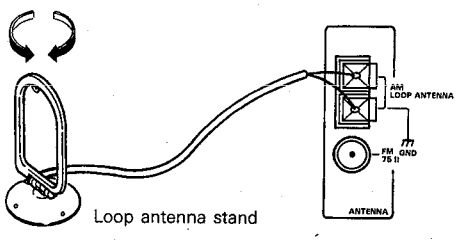
ETD-0400



■ AM (MW, LW) loop antenna connection

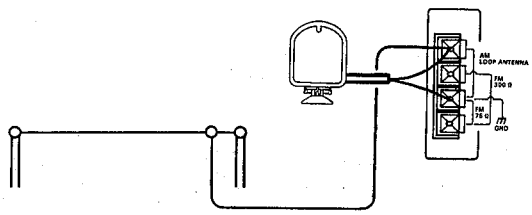
The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

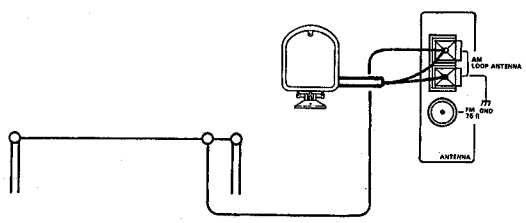




■ AM (MW, LW) outdoor antenna connection

If the reception is poor when the AM (MW, LW) loop antenna is used, distribute a vinyl-coated wire of more than 6 meters outdoors, without disconnecting the loop antenna.

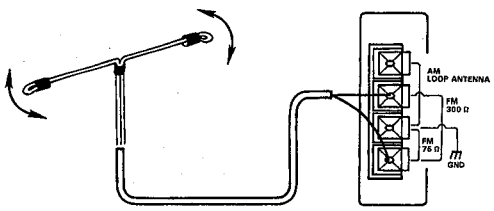


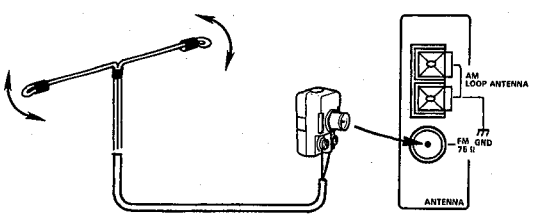


■ FM indoor antenna connection

The supplied antenna is for indoor use. For stable reception, remove the indoor antenna after installing an outdoor antenna as soon as possible.

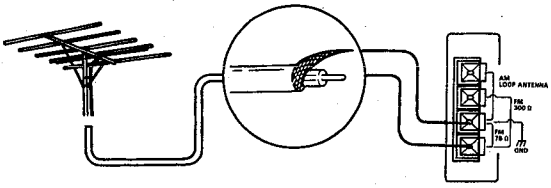
① Find the position that provides best reception.
② Fix two ends.

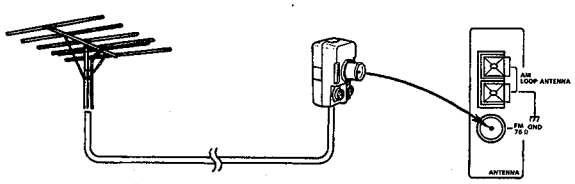




■ FM outdoor antenna connection

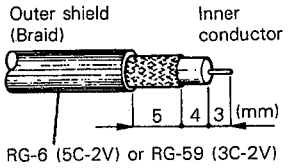
It is recommended to install an exclusive FM outdoor antenna to capture FM broadcasts with high sound quality.Use a coaxial cable for the connection between the outdoor antenna and FM ANTENNA terminal on the rear panel. For the connection between the coaxial cable and FM ANTENNA terminal, please refer to the illustration.



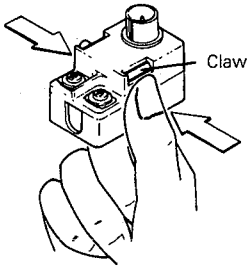


■ 75 Ω coaxial cable connection (M-26)

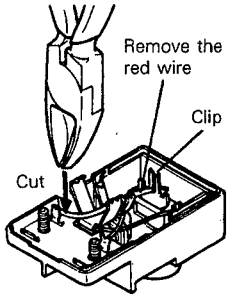
① **Arrange the coaxial cable as illustrate.**



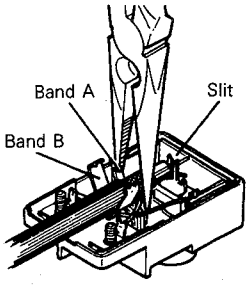
② **Open the 75 Ω/300 Ω antenna adaptor.**
Press the claws in the direction of the arrows with the fingers to release the lock and pull out the cover.



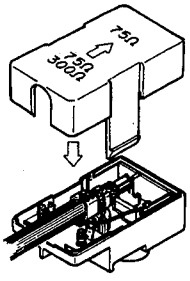
③ **Cut off the red wire and remove it from the clip.**



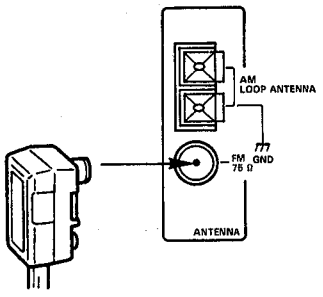
④ **Insert into the slit on the clip. Fasten the bands A and B, using a pair of pliers.**



⑤ **Close the cover.**

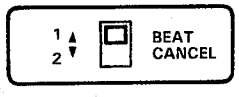


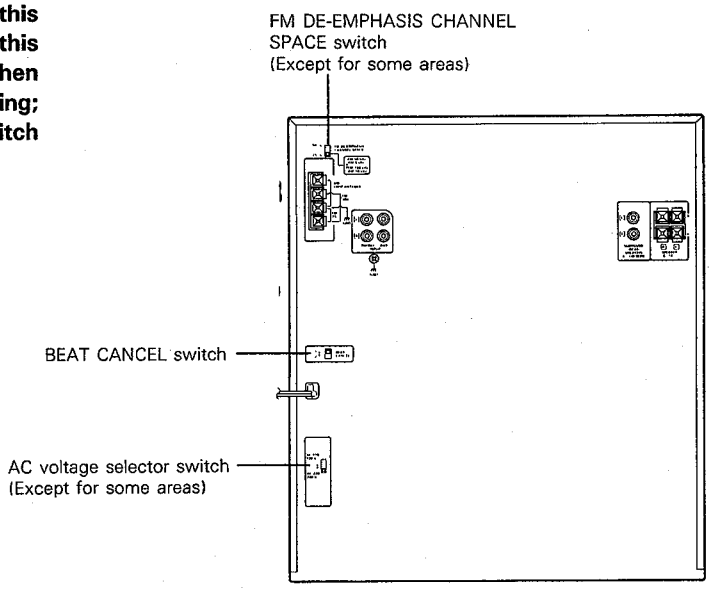
⑥ **Connect the adaptor to the antenna terminal.**



■ BEAT CANCEL switch

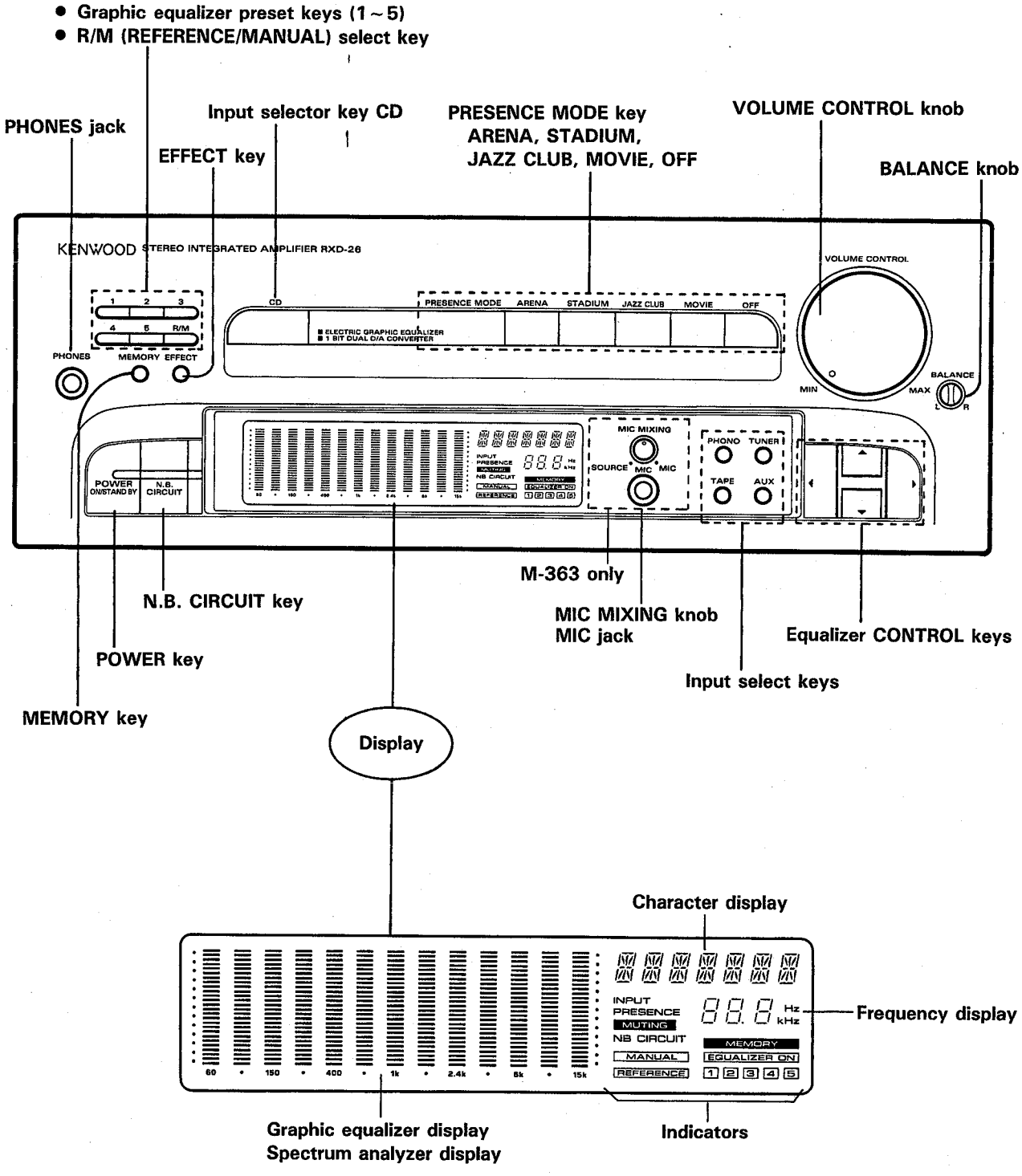
A high-pitched beat sound is sometimes heard when making recordings from AM (MW, LW) broadcasts. When this occurs, the beat sound can be canceled by setting this switch to "1" or "2". Beat sound may also appear when listening to AM (MW, LW) broadcasts during tape dubbing; this beat sound can also be canceled by setting this switch to "1" or "2".





Controls and indicators

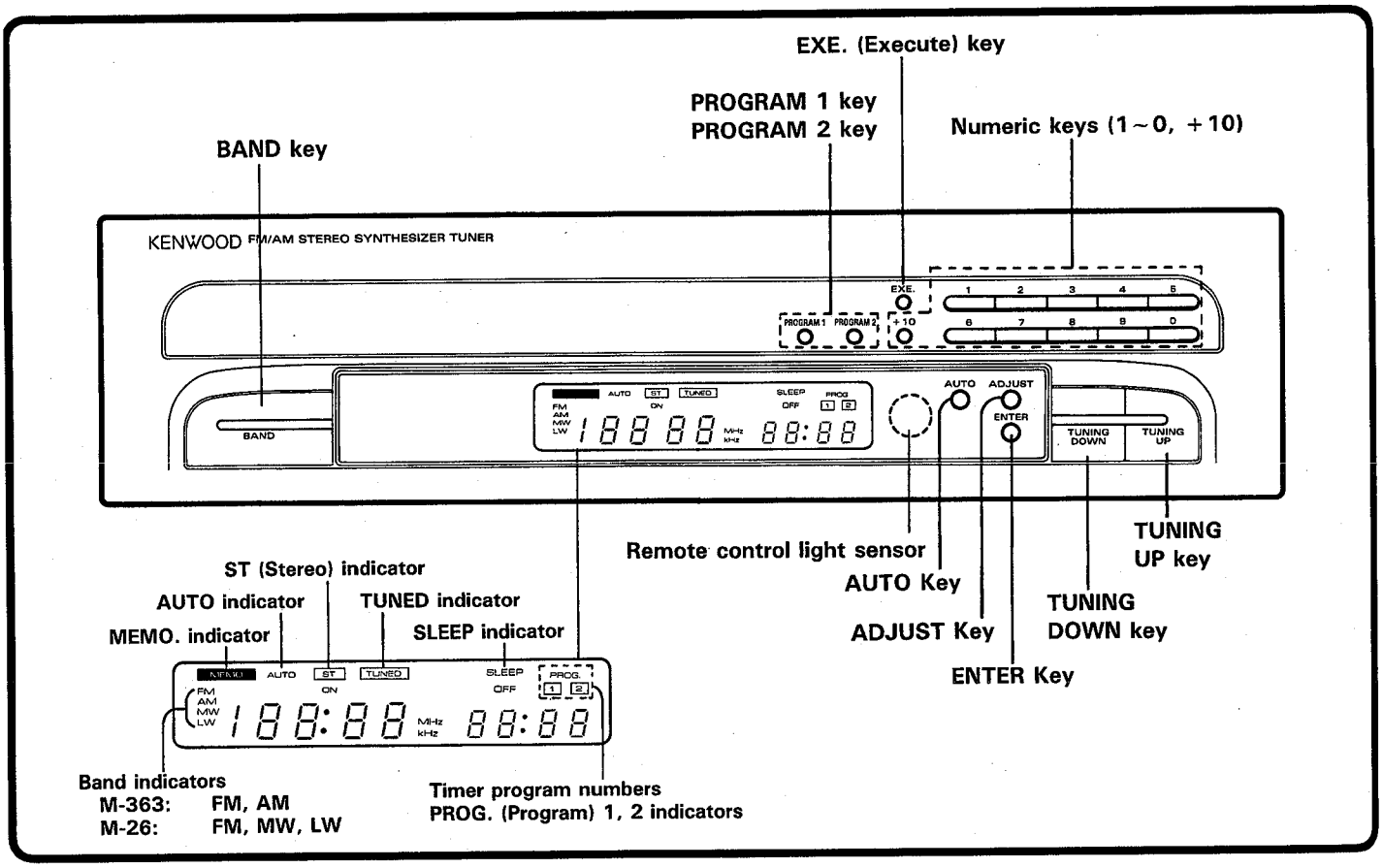
■ Amplifier



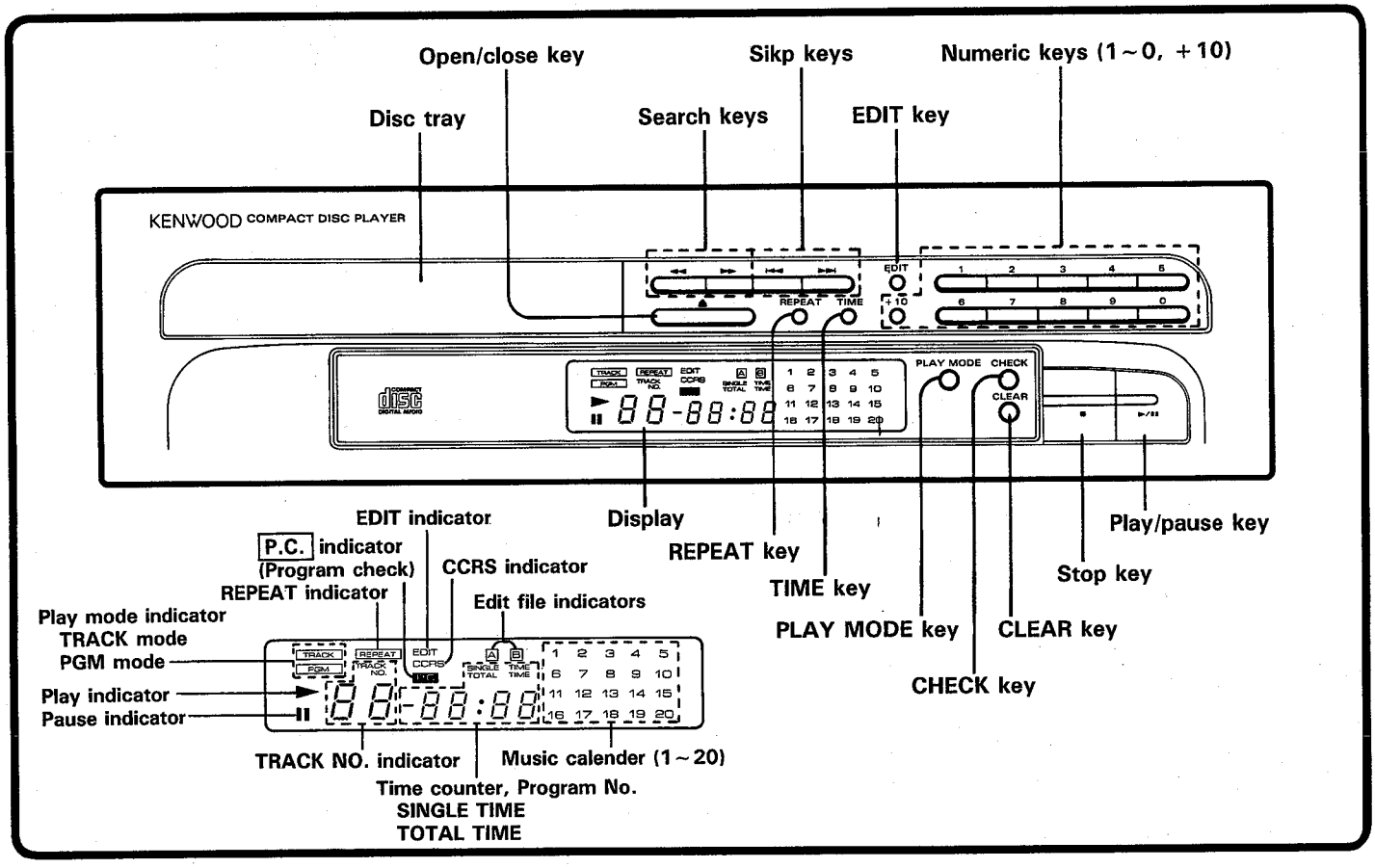
DISPLAY key **Remote control only**

Each time the DISPLAY key is pressed, the Character display is switched between the INPUT display and the PRESENCE display.

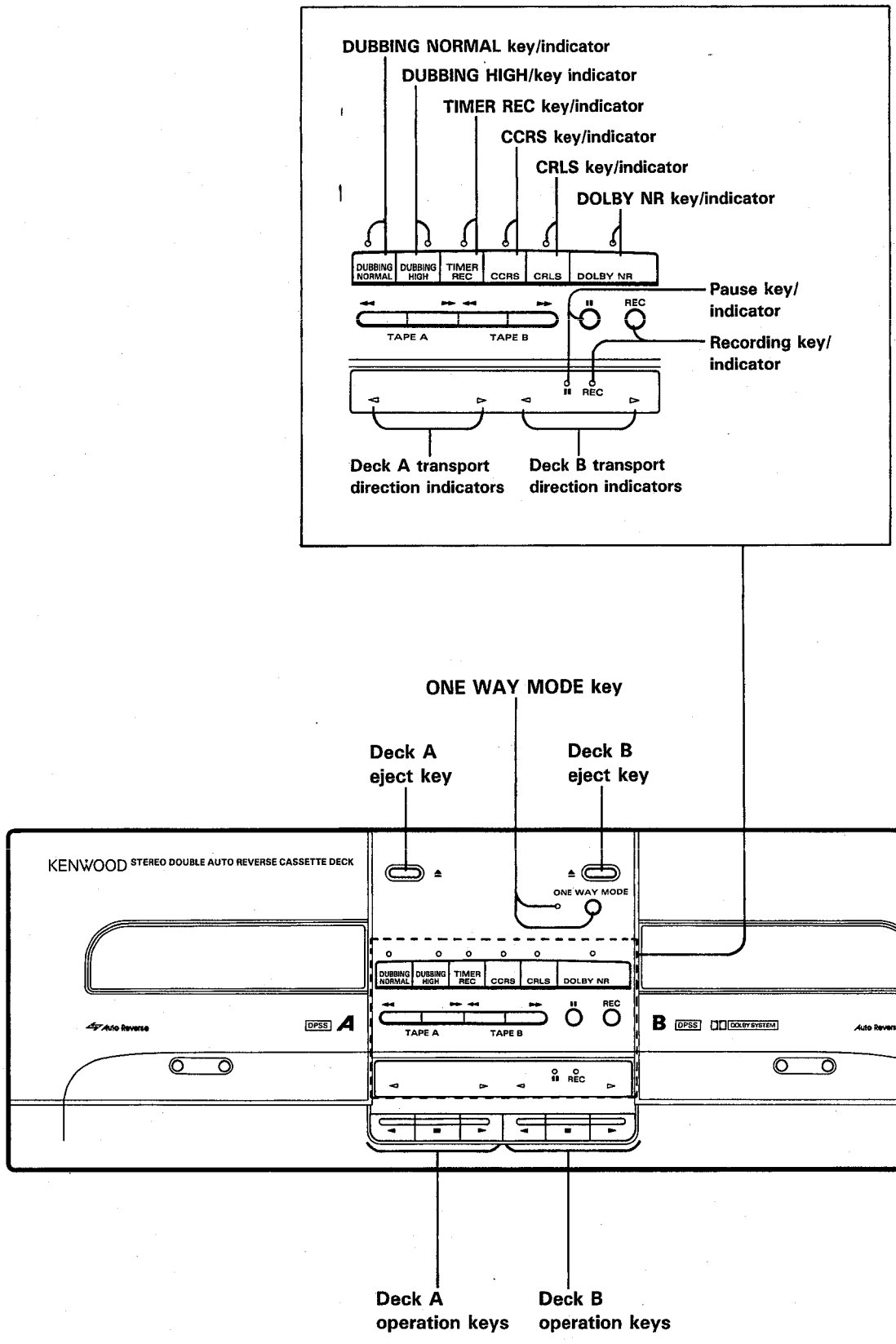
■ Tuner



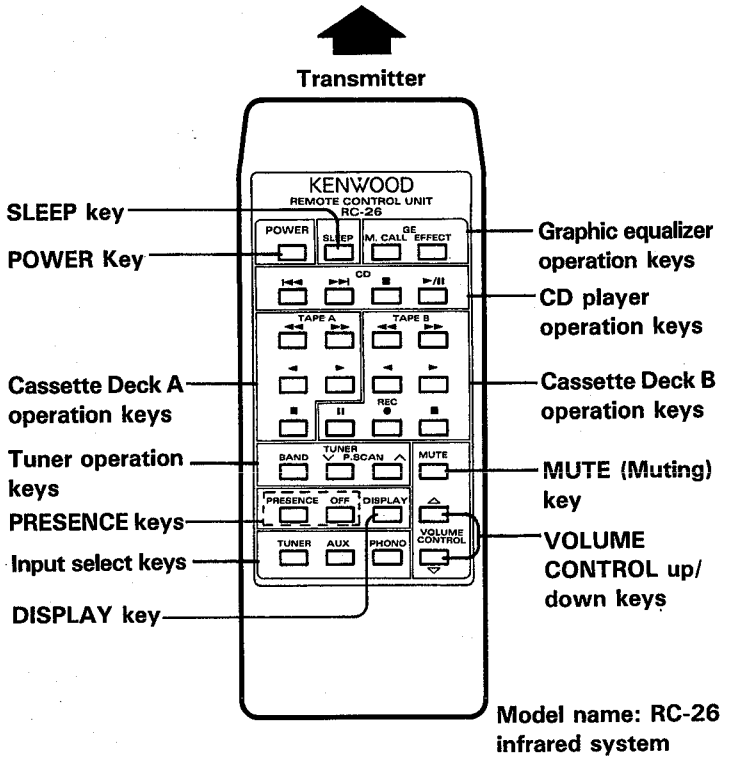
■ CD player



■ Cassette deck

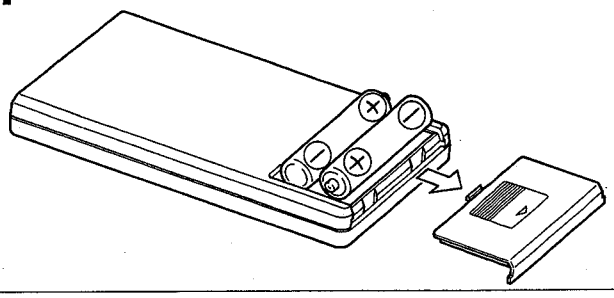


Operation of remote control unit

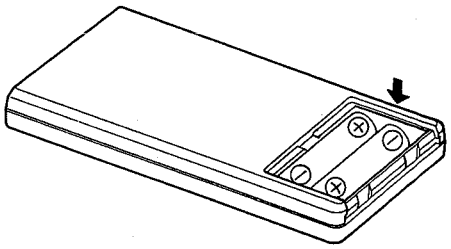


■ Loading batteries

1 Remove the cover



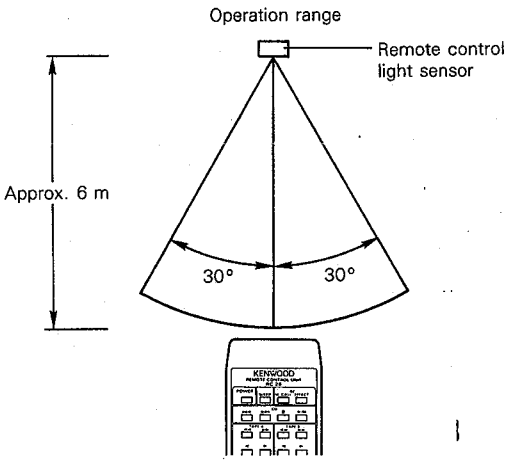
2 Insert batteries



- Insert two AAA-size (R03) batteries as indicated by the polarity marking.

■ Operation procedure

Plug the power cord of the main system into an AC wall outlet, and press the POWER key on the remote control unit to turn the power on. When the power is turned on, direct the remote control transmitter toward the tuner and press the key of the source component to be operated.



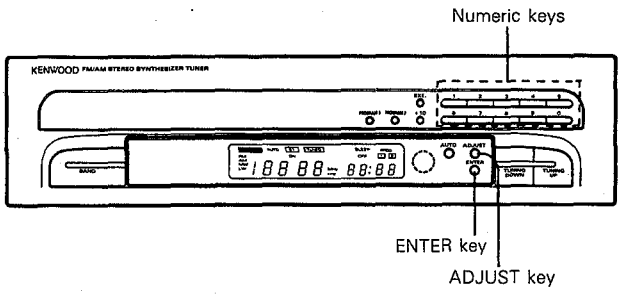
- When two operation keys on the remote control unit are pressed successively, press each key securely reserving an interval of more than 1 second for each press.

Notes:

1. The supplied batteries are intended for use in operation checks. Therefore, their lives may be shorter than ordinary batteries.
2. When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
3. Malfunction may occur if direct sunlight or the light of a high-frequency lighting fluorescent lamp enters the remote control light sensor. In such a case, change the system installation position to prevent the malfunction.

Clock adjustment

The tuner incorporates a clock. By adjusting the time of the clock, the time can be used not only for the clock display but also in the timer function.



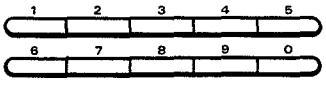
1 Enter the time adjustment mode.

ADJUST

2 Input the time of the day.

To input 9:05 AM, [0], [9], [0], [5]

To input 4:50 PM, [1], [6], [5], [0]

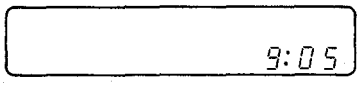


Use the 24 hour clock method.

- If you commit a mistake in the input of numeric keys, re-start the time adjustment from the beginning.

3 Press the ENTER key.

ENTER



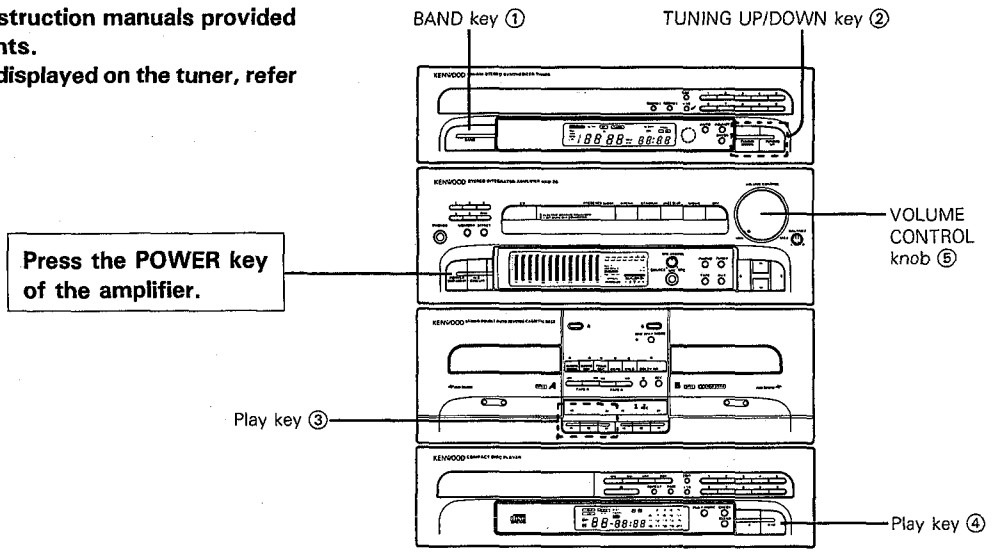
- For correct time adjustment, it is recommended to press the [ENTER] key at the same time announcement.

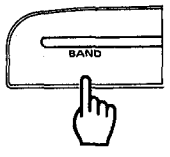
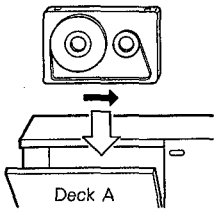
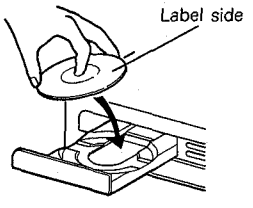
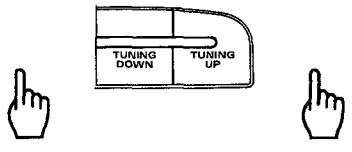
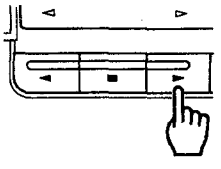
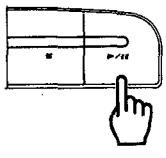
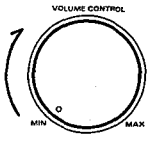
The clock will start to work.

Note:
The time display blinks after a power failure or when the power cord was unplugged from the power outlet. In this case, set the time again.

Listening to sound

For details, also refer to the instruction manuals provided with the connected components.
For the adjustment of the time displayed on the tuner, refer to page 15.



	To listen to a radio broadcast	To listen to a tape	To listen to a CD
1	**Select the tuner input.** **Select a broadcasting band by pressing the BAND key ①.** 	**Insert a tape in Deck A.** 	**Place a CD on the tray.** 
2	**Select a station.** **Press the TUNING UP or DOWN key ②.** 	**Play the tape.** **Press the play key ③.** 	**Play the CD.** **Press the ►/II key ④.** 
3	**Adjust the volume.**		• Turn the VOLUME CONTROL ⑤ for an optimum volume.

Note:
If sound is not output, check the connections described from page 8 again.

Input selector keys of amplifier
When the power is switched on, the input select keys of the amplifier are initialized as follows.

Priority order 1 Cassette deck ..... If a tape is present in a cassette deck, it is played back automatically. If tapes are present in both decks, playback starts with Deck B.

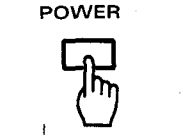
Priority order 2 CD player ..... If tape are not present in cassette decks while a CD is present in the CD player, the CD is played.

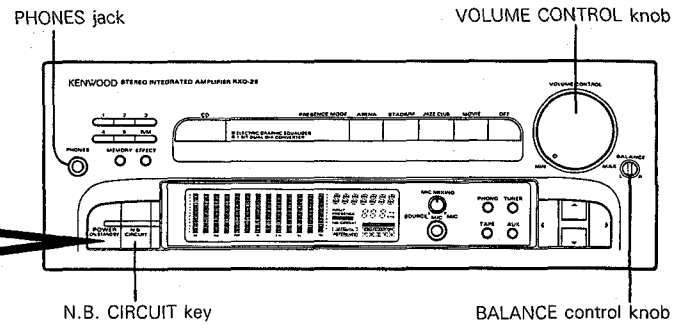
If no tape or CD is present in the cassette decks and CD player, the input source which was selected before the power was turned off (TUNER, PHONO, AUX) is selected.

Operation of amplifier

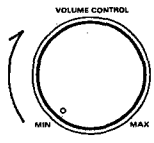
Press the POWER key of the amplifier.

- The POWER key on the amplifier can switch on/off the powers of main system.





■ Adjusting the volume



- The volume can also be adjusted from the remote control unit.

To mute sound temporarily **Remote control only**

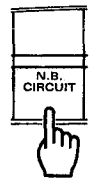
- The MUTING indicator blinks. Pressing again resumes the original volume.

■ Adjusting the left and right volume balance

To decrease right speaker sound

To decrease left speaker sound

■ Compensation of bass sound

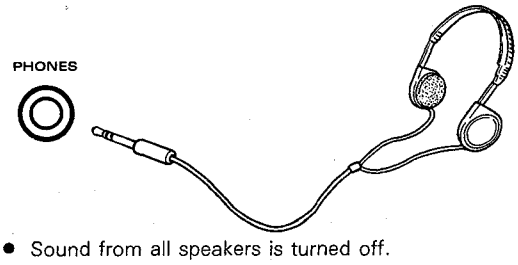


N.B.CIRCUIT: Natural Bass Circuit

- Bass sound is boosted.

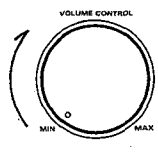
■ Listening through headphones

1 Insert the headphone plug into the headphones jack.



- Sound from all speakers is turned off.

2 Adjust the volume.



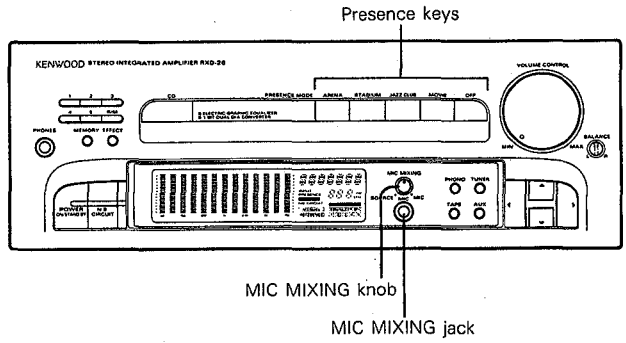
- Be sure to minimize the volume before unplugging the headphone plug.

Automatic play operation function

The automatic play operation allows to start playing the selected input source by simply pressing the input select key (TAPE, TUNER, CD). It also allows to select a correct input select key on the amplifier by simply starting playback on the desired input source component. The same operation is also possible with the relative keys on the remote control unit.

STAND BY mode of POWER key

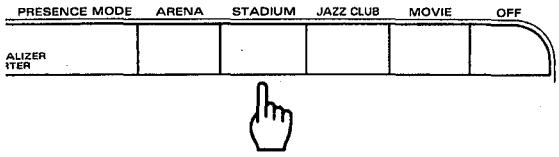
When the power cord of this system is plugged into an AC outlet, time display blinks regardless of the ON/OFF setting of the POWER key. This indicates that a small amount of current is being supplied to the unit to back up the memory contents and support the timer function. This mode is referred to as the Stand By mode. While the time display is lit, the power of the system can be switched ON/OFF from the remote control unit.



■ Presence effect

1 Play music.

2 Select a presence mode.



On the remote control unit, the presence modes are switched over as follows every time the key is pressed.

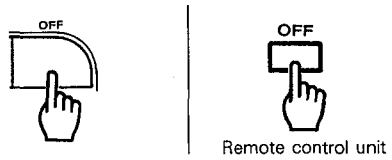
→ ARENA → STADIUM → JAZZ CLUB → MOVIE →

- According to the presence mode selected, four kinds of equalizer curves are created automatically to enhance the presence effect.
- The presence effect is not noticeable with certain music sources.

List of presence modes

ARENA	Atmosphere of a large hall with many reverberations
STADIUM	Atmosphere of a stadium with wide sound expansion
JAZZ CLUB	Atmosphere of a live house with resounding vocals and saxes
MOVIE	Powerful feeling like in an actual movie theater

To cancel the presence mode

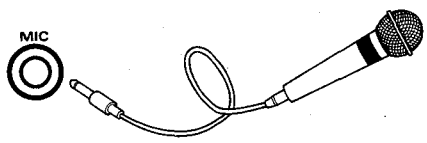


Remote control unit

■ Microphone mixing (except U.K. and Europe)

1 Set the MIC MIXING control to the fully counterclockwise position.

2 Insert the microphone into the MIC jack.



3 Adjust the volume balance between the microphone and source.

- The overall volume can be adjusted with the VOLUME CONTROL knob.
- The sound obtained by microphone mixing can also be recorded.

To use microphone alone

① Without loading a cassette tape, select the CD or AUX input.

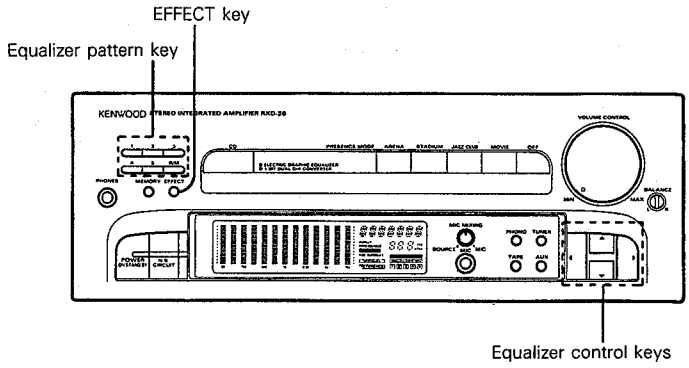
② Set the MIC MIXING control to the fully counterclockwise position.

③ Adjust the volume with the VOLUME CONTROL knob.

Notes:

1. Before plugging or unplugging the microphone, set the MIC MIXING control and the VOLUME CONTROL knob to the fully counterclockwise positions.
2. When the microphone is not used, set the MIC MIXING control to the fully counterclockwise position.
3. While the TAPE input is selected, microphone mixing cannot be used unless a tape is played.

Operation of graphic equalizer



■ Application of equalizer effect

1 Play a music source.

2 Press the EFFECT key on the amplifier.

EFFECT

lights up.

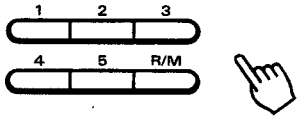
3 Select an equalizer pattern.

① Set to REFERENCE or MANUAL.

Each press switches over between them, and the REFERENCE or MANUAL indicator lights up accordingly.

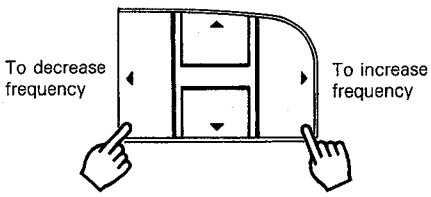
② Press the preset key for the desired pattern.

(Select the pattern referring to the "List of preset equalizer patterns".)

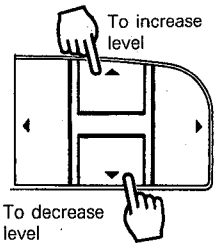


4 Adjust the equalizer level.

① Select the frequency band to be adjusted.



② Adjust its level.



③ Repeat steps ① and ② to adjust the desired frequency band.

- Seven frequency bands can be adjusted.
- For reference in creating desired tones, read the "Sound equalization".

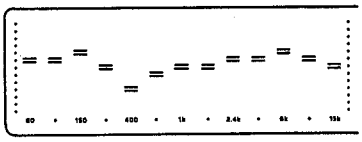
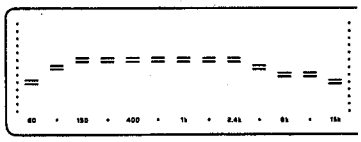
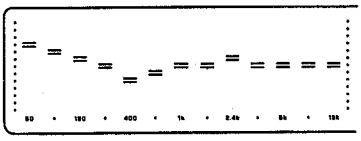
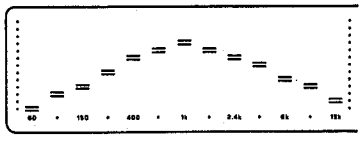
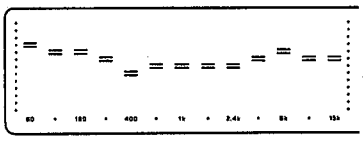
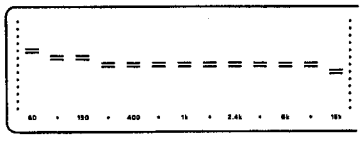
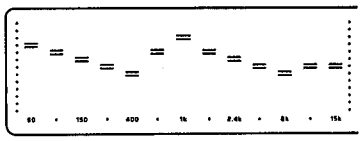
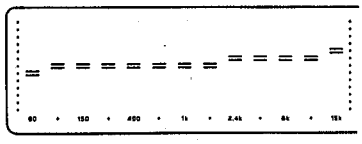
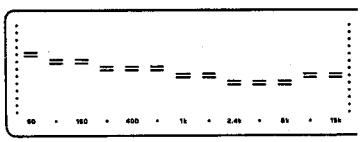
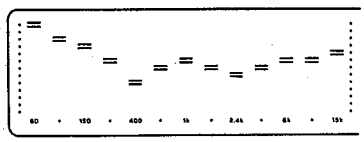
To cancel the equalizer effect

EFFECT

- The pattern being displayed remains the same.

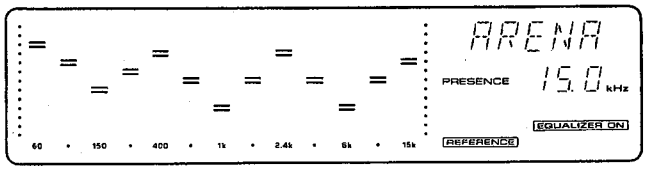
goes off.

■ List of preset equalizer patterns

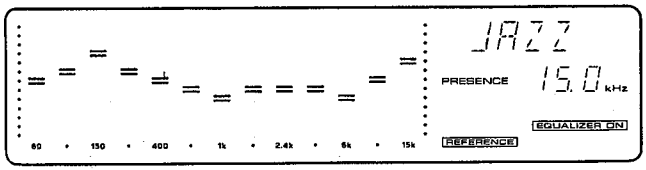
Preset equalizer pattern: REFERENCE 1 to 5	Preset equalizer pattern: MANUAL 1 to 5 Patterns can be created and preset by the user in this mode.
1 [PHONES] For recording sound by adjusting its sound suitable for playback with a headphone stereo.	**1** For reducing ultra-low frequency noise or scratch noise when playing an analog disc.
	
2 [CAR] For recording sound by adjusting its sound suitable for playback with a car stereo.	**2** For playing the jazz of the fifties, etc., with an ambience of those days.
	
3 [ROCK] For playing rock or fusion music with more powerful sound.	**3** For playing music for a long period of time, like background music.
	
4 [VOCAL] For playing various kind of music with enhanced vocal.	**4** For playing very detailed music.
	
5 [SOFT] For playing music with soft sound by cutting irritating middle and high frequencies.	**5** To create an exciting sound by enhancing ultra-low and high frequencies.
	

■ List of preset equalizer patterns with the presence effect

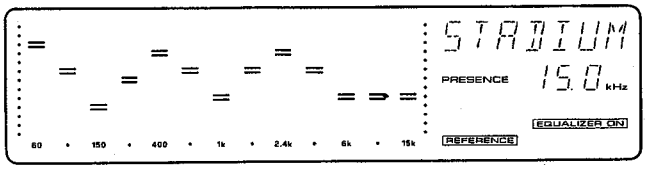
ARENA



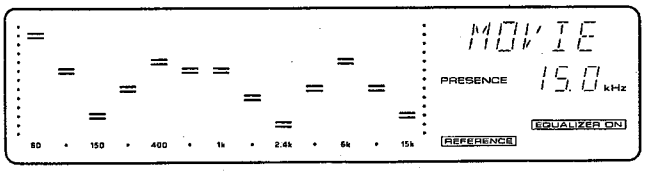
JAZZ

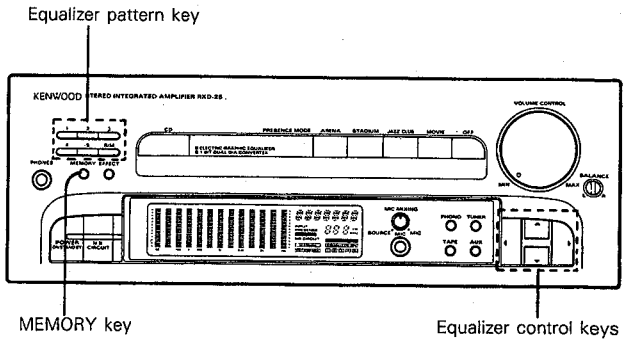


STADIUM



MOVIE

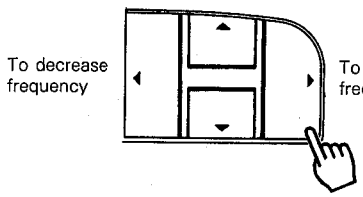




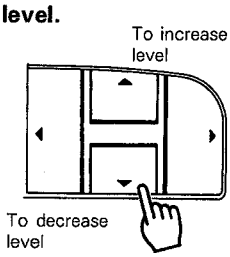
■ To preset a user-created pattern

1 Create a desired equalizer pattern.

① Select the frequency band to be adjusted.



② Adjust its level.



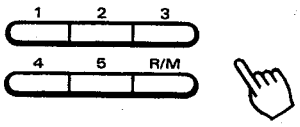
③ Repeat steps ① and ② to adjust the desired frequency band.

2 Preset the equalizer pattern.

① Press the MEMORY key.

② Press one of the preset keys.

Press while MEMORY is lighted up.

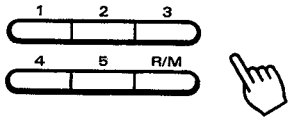


- The presset patterns are memorized in M (MANUAL) 1 ~ 5.

■ To clear a user-preset pattern and return to the originally-preset pattern

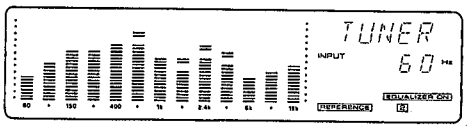
① Set to MANUAL.

② Press the preset key for more than 5 seconds.



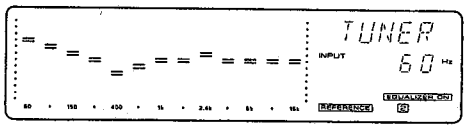
Display

Spectrum analyzer display



Displays the frequency distribution of the source being played to allow understanding at a glance.
The peak value of the varying level of each frequency range is held and displayed for about 0.5 second.

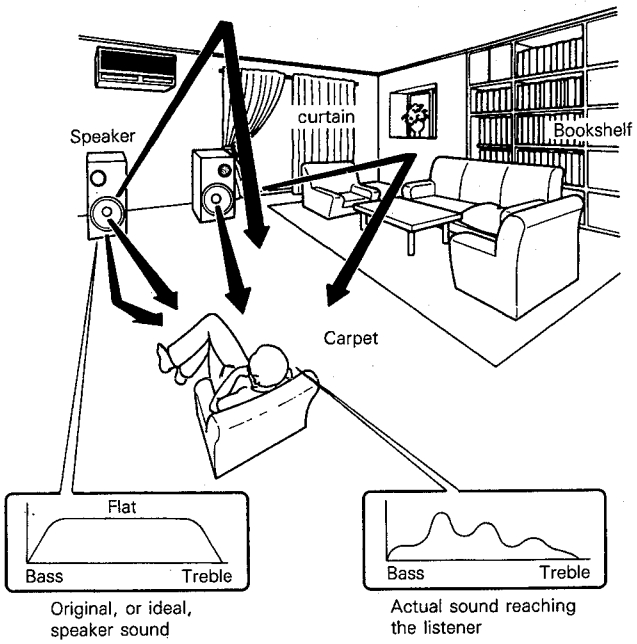
Graphic equalizer display



Shows how each frequency range is compensated.
The graphic equalizer display also appears for about 5 seconds, even while the unit is in the spectrum analyzer display mode, when one of the following operations is performed.

1. When the power is turned on.
2. When an equalizer pattern key is pressed.
3. When an equalizer control key is pressed.
4. When the MEMORY key is pressed.
5. When the presence mode key is pressed.

Functions of graphic equalizer



Original, or ideal, speaker sound

Actual sound reaching the listener

Compensation for the audio characteristics of listening room

The listening room may contain several objects. Some of them reflect sound and some absorb sound, thus the sound reaching your ears is considerably affected by these objects.
In such cases, the graphic equalizer can be used to adjust the frequency response of the room for a flat response from low to high frequencies.

- Low frequencies are absorbed by beds, chairs, etc.
- High frequencies are absorbed by curtains, screens, etc.
- The room structure can cause the low frequencies to be unclear, or the sound level to increase or decrease depending on the frequency.

Adjustment of sound to your individual taste

When the reproduced sound contains several musical instruments and voices, the graphic equalizer allows you to enhance or attenuate the sound of specific instruments or voices.

Sound equalization

Super bass range (60 Hz)

When this control is moved up, the bass instrument (double bass, bass drums, or pipe organ, etc.) sound is increased.
When the super bass sound is boomy, move this control down.

Bass range (150 Hz)

Usually, the listening room resonance frequency is in this range. To eliminate bass resonance, move this control down.

Mid-bass range (400 Hz)

This range is the basis of music. Whether the sound is rich or not, depends on this range. When the playback sound is not so good, move this control up.

Mid range (1 kHz)

When this control is moved up or down, the baritone or soprano voice is emphasized/de-emphasized. This range is related to the "presence" of music.

Mid-high range (2.4 kHz)

This range is related to stimulus and metallic sound. When this range is well compensated, vivid sound can be obtained.

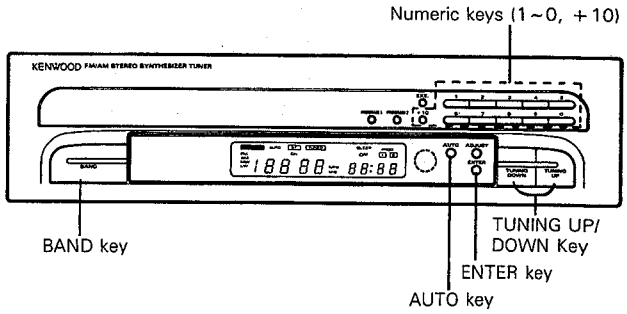
High range (6 kHz)

This frequency range is related to the hardness of the sound. When this control is moved up, strings or brass instruments, such as flutes or piccolos, are emphasized. When the control is moved down, the sound will be more soothing.

Super high range (15 kHz)

This frequency range is related to the details of the music. When this control is moved up, super high frequency instruments, such as triangles or cymbals, are emphasized, resulting in wide sound and echoes.

Operation of tuner

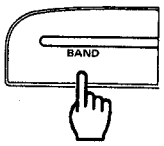


■ Receiving broadcast stations and storing them in memory (preset operation)

1 Select the tuner input.

TUNER

2 Select the broadcast band (FM, AM/MW, LW).



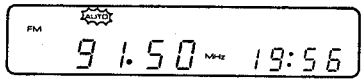
The bands are switched as follows every time the [BAND] key is pressed.

→ FM → AM (MW → LW) →

3 Enter the AUTO tuning mode.

AUTO

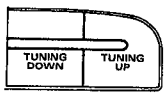
[AUTO] indicator lights up.



The indicator goes on (AUTO) and off (manual) alternately every time the key is pressed.

4 Tune a desired station.

To decrease frequency



To increase frequency

- The TUNED indicator lights up when a station is received.
- Use manual tuning mode in case the radio wave is weak and noisy. In this case, the reception mode is set to monaural.

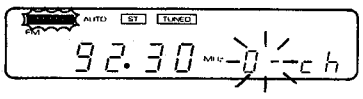
Auto tuning mode	Manual tuning mode
Press once. (Tuning stops automatically when a station is received.)	Press repeatedly, or press and hold, until the station is received.

5 Storing the stations in memory.

① **Press the ENTER key.**

ENTER

[MEMO.] indicator lights up. (for about 5 seconds)



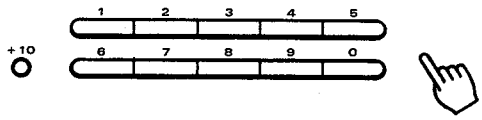
- A total of 20 stations can be preset in memory regardless of their broadcast bands.
- Proceed to step ② before [MEMO.] stops lighting.

② **Press the numeric keys to preset the station.**

Examples:

To select preset No. 15: [+10] [5]

To select preset No. 20: [+10] [+10] [0]

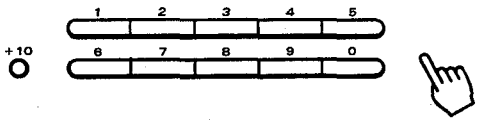


- If a station has been preset under the numeric key pressed, the previous preset content is replaced by the new station.
- Repeat step 2 to 5 above for each of other stations to be preset.

■ Receiving a preset station

Select the desired station.

Press the numeric key under which the station is preset.

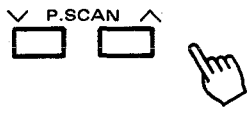


- The frequency of the station received will be displayed.

■ Listening to all preset stations in sequence: Preset Scan

Remote control only

Press the P.SCAN key.

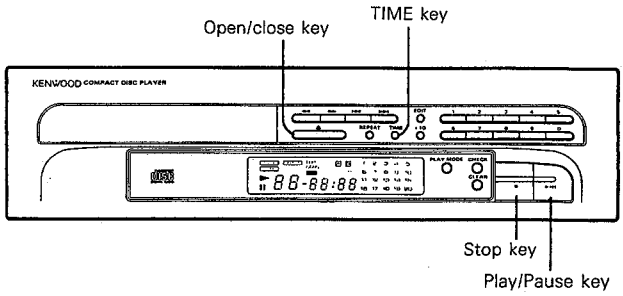


- Each press of the [∧] key tunes in the next preset station according to the sequence 1→2 ... 20→1 ..., each press of the [∨] key tunes in the next preset station according to the sequence 20→19 ... 1→20 ....
- Holding the [P.SCAN] key pressed recalls the preset stations every 0.5 seconds. The station recalled at the time when the key is released is received.

Last channel memory

When the tuner's band selector is switched or when the amplifier's input selector is switched from another source to TUNER, the last received station is recalled for each of FM, AM (MW, LW) when the amp power is switched ON.

Operation of CD player

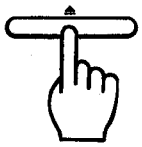


■ Playing a CD from the beginning (TRACK mode)

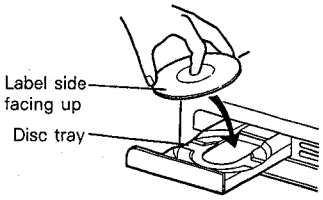
1 **Press the CD input selector key of the amplifier.**

2 **Insert a CD.**

① **Open the disc tray.**

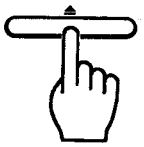


② **Place a CD on the tray.**

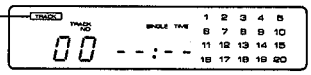


- Hold the disc taking care not to touch the side to be played.
- Be sure to place only one CD at a time.

③ **Close the tray.**

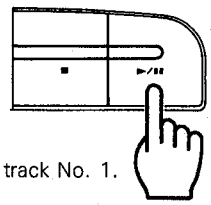


TRACK indicator lights up.

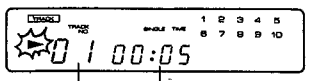


The track Nos. recorded on the CD are displayed.

3 **Start playback.**



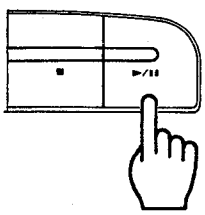
- In a few seconds, playback starts from track No. 1.



Track No. being played

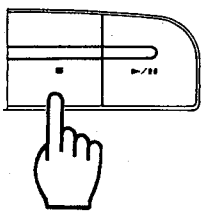
Elapsed time from the beginning of track being played

To pause CD play



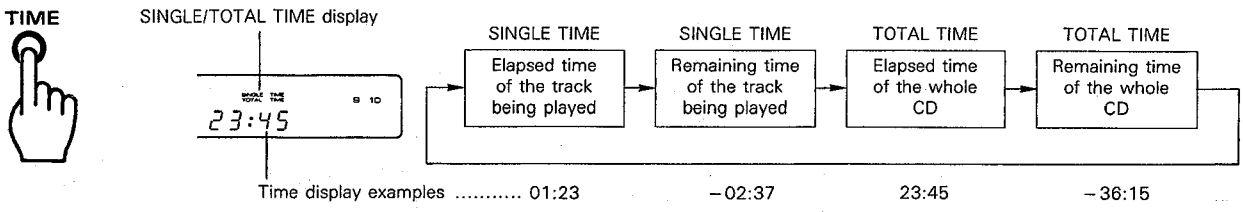
To resume playback, press the ►/II key again.

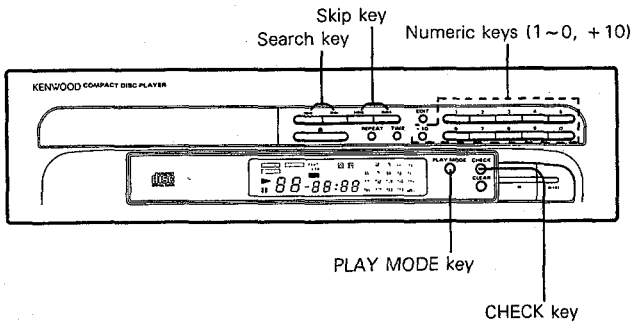
To stop CD play



TIME key

Press the TIME key when you want to check the elapsed time and remaining time of the track being played. Every time the TIME key is pressed, the displayed time changes as shown below.
The time information display may not appear when playing a CD containing 44 or more tracks or if the total playing time of tracks programmed in the PGM mode is 100 minutes or more. In such a case, the display will show "——:——".

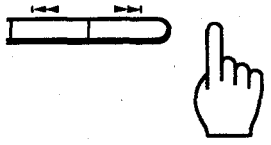




■ Listening from the desired track

Select with the skip key.

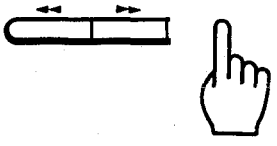
Press one of the skip keys according to the direction to skip.



- The tunes are skipped in the direction of the key and the play starts at the beginning of the selected tune.
- When the [⏮] key is pressed once during play, the track starts again from the beginning.

Select with the search key.

Press the forward or reverse search key according to the direction to search.



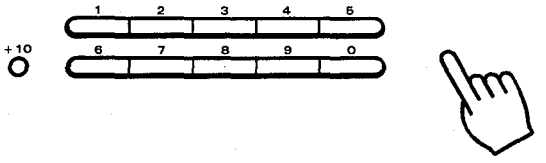
- The track will start to play from where you release the key.
- The fast forward or reverse speed increases as the key is held depressed.

Select with the numeric key.

1 Ensure that the CD player is in the TRACK mode.

- If the [PGM] indicator is lighted, press the [PLAY MODE] key.

2 Select the desired track.



Examples of entry:
To enter track No.23: [+10] [+10] [3]
To enter track No.40: [+10] [+10] [+10] [+10] [0]

- Play starts from the selected tune and after.

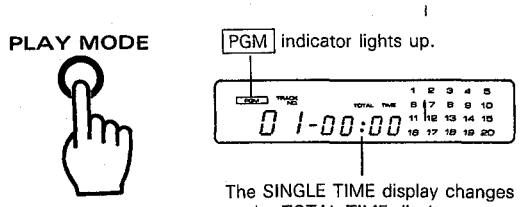
Notes:
1. If a track No. which is not present on the CD is selected while the tray is open, the last track on the CD will be played.
2. Such a selection is not accepted after the tray has been closed or playback has started.

■ Playing desired tracks in desired order (PGM mode)

The program mode allows you to play desired tracks in the order you want to hear them. A maximum of 20 selections can be entered in memory.

1 Enter the PGM mode.

Press the PLAY MODE key.

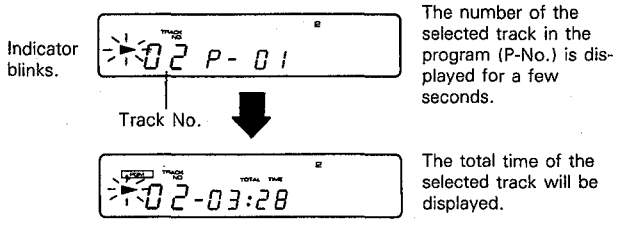


2 Program desired tracks in desired order.

Example:

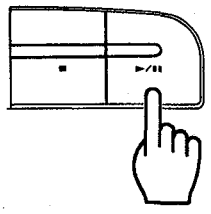
To program track Nos. 2, 5 and 25:

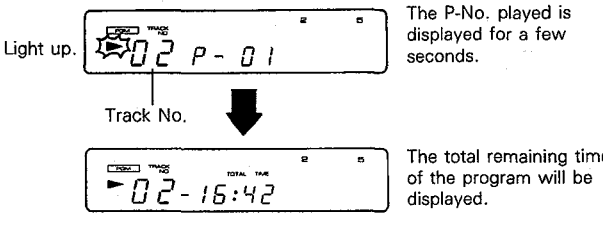
Press numeric keys [2] [5] [+10] [+10] and [5] in this order.


Indicator blinks.
02 P-01
Track No.
The number of the selected track in the program (P-No.) is displayed for a few seconds.
02-03:28
The total time of the selected track will be displayed.

- Up to 20 tracks can be programmed.
- If you made a mistake, press the [CLEAR] key and select the correct track.
- Tracks can also be programmed by reading the disc label while the disc tray is open.
- The time information is not displayed if a track No. of 44 or more is programmed.

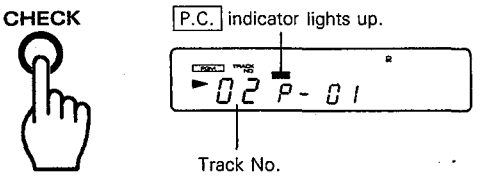
3 Start playback.




Light up.
02 P-01
Track No.
The P-No. played is displayed for a few seconds.
02-16:42
The total remaining time of the program will be displayed.

- Tracks are played in the order they are programmed (P-No.).
- If one of the skip keys ([▶▶I] or [I◀◀]) is pressed during programmed playback, the track being played is skipped in the forward or reverse direction.

To check the programmed order

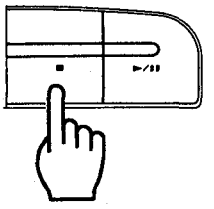


- Every time the CHECK key is pressed, the track No. and the order it was programmed (P-No.) are displayed in the order of programming.
- The previous display will resume in a few seconds.

To resume normal playback

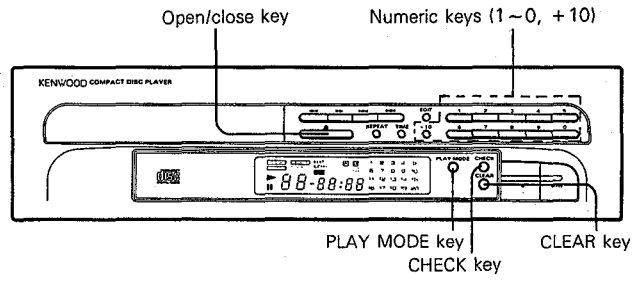
- The playback in the order of the track Nos. on CD will start after the track being played.

To stop programmed playback



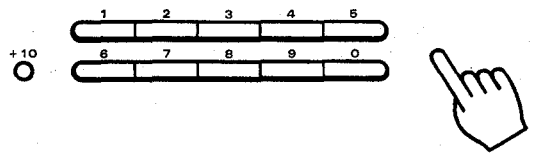
Auto-Space function

During playback in the program mode, a space of about 4 seconds is reserved automatically between the programmed tracks. This function is provided to facilitate the DPSS function of the cassette deck. However, such a space could also be reserved in case the sound of two tracks are continued, for example with some classic music and live recordings.



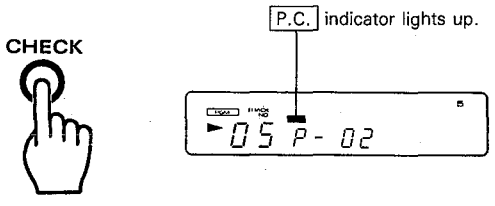
■ To add a track to the program

Press the key(s) for the track No. to be added.



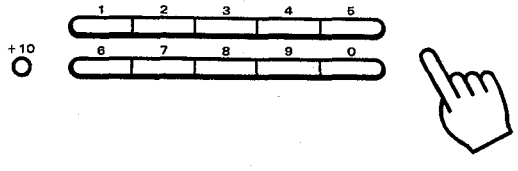
■ To change a track in the program

1 Press the CHECK key.



Press until the P-No. to be changed is displayed.

2 Press the key(s) to input the track No. to replace the previous one.



Press while the P.C. indicator is lighted.

- The track being played cannot be changed.

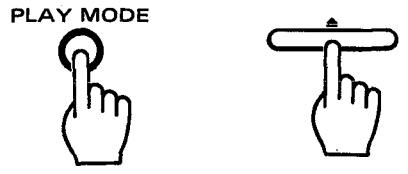
■ To clear tracks from the program

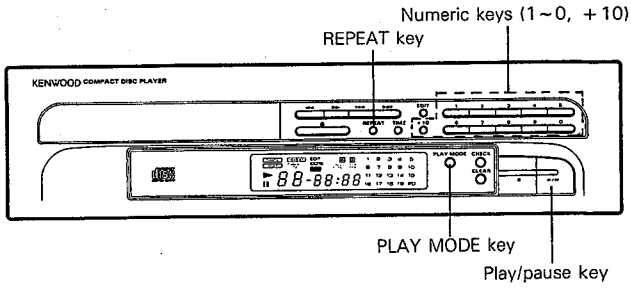
Clearing from the last track

- Every time the key is pressed, tracks are cleared from the last track in order.

Clearing the whole of program

Press either of these keys.





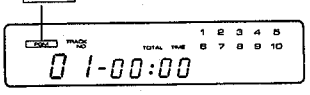
■ Repeated playback

Repeated playback of programmed tracks

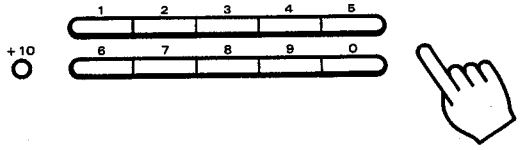
1 Enter the PGM mode.

PLAY MODE

PGM indicator lights up.



2 Select the desired track.

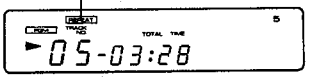


- All of the selected tracks will be played repeatedly.
- If only one track is selected, that track will be played repeatedly.

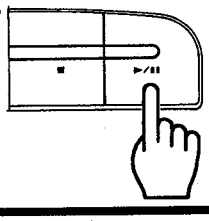
3 Press the REPEAT key.

REPEAT

REPEAT indicator lights up.



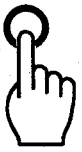
4 Start playback.



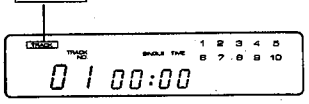
Repeated playback of the whole CD

1 Enter the TRACK mode.

PLAY MODE



TRACK indicator lights up.

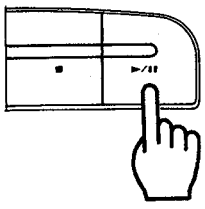


2 Press the REPEAT key.

REPEAT

REPEAT indicator lights up.

3 Start playback.

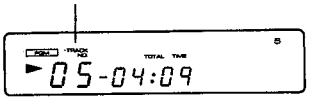


To resume normal playback

Press the REPEAT key again.

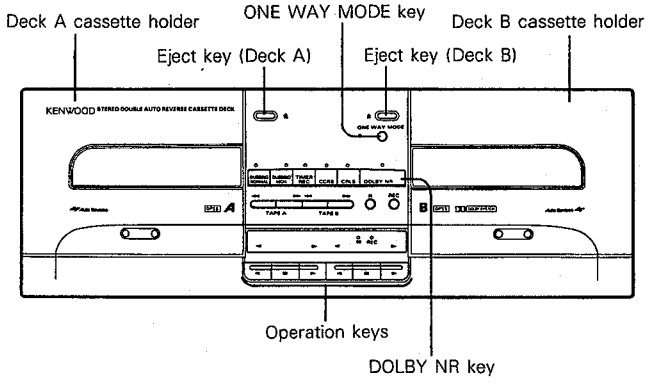
REPEAT

REPEAT indicator goes off.



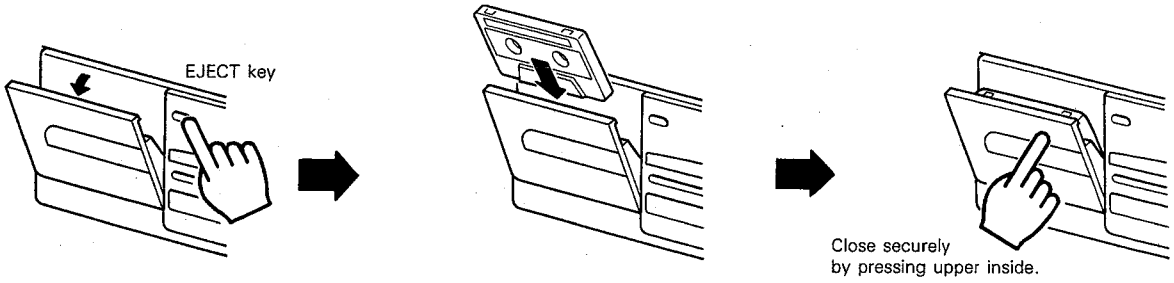
- The playback will be resumed under the CD player mode set before the repeat.
- The REPEAT key does not function during CCRS.

Playback of cassette deck



■ To playback a tape

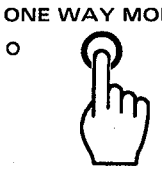
1 Insert a tape.



- The type of tape, Normal, Chrome or Metal, is detected and set automatically.
- The tape shall be fully rewound to one of the reels before being inserted into the cassette holder.

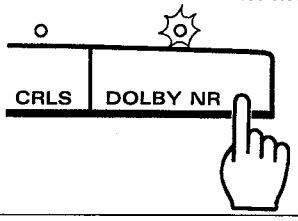
2 Determine the playback conditions.

① Selection of one side or both sides playback mode



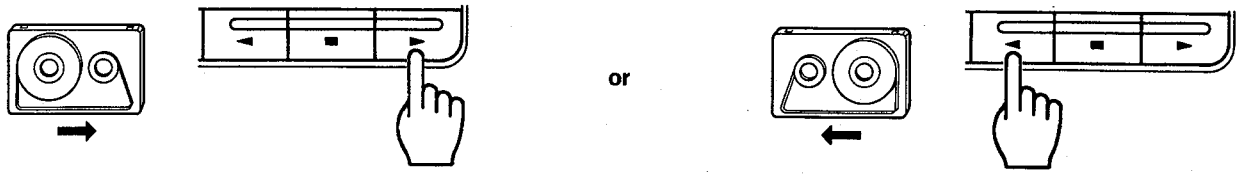
ON (lights up)	Play only one side of tape.
OFF (goes off)	Play both sides endlessly.

② Selection of DOLBY NR mode

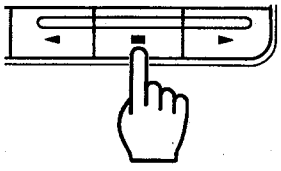


ON (lights up)
OFF (goes off)

3 Start playback.



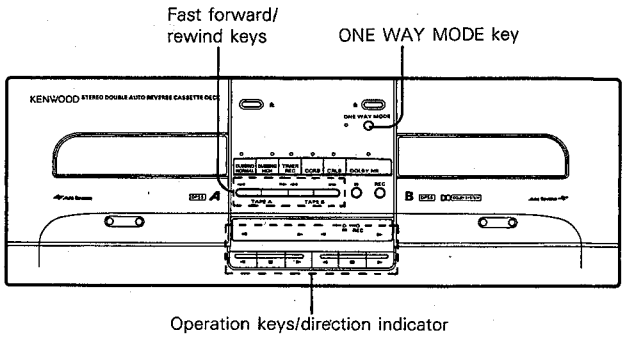
To stop playback



- When the ONE WAY MODE key is set to ON, the playback stops automatically at the end of tape.
- Do not press the eject key except when the tape is stationary.

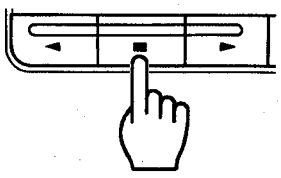
DOLBY NR (Noise Reduction)

The DOLBY NR system minimizes tape noise heard during tape playback by utilizing the characteristics of tape recording and playback. The tapes recorded with DOLBY NR ON must be played back with DOLBY NR ON.

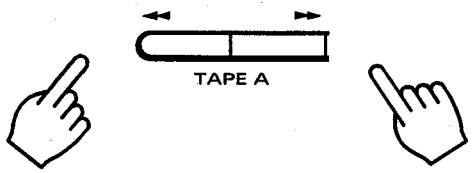


■ To wind the tape at high speed

1 Stop playback.



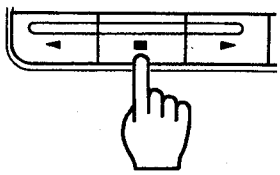
2 Press the ◄◄ key or ►► key.



◄◄: **Fast tape winding in the ← direction**

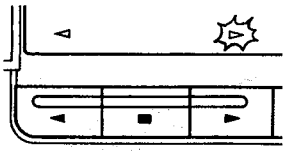
►►: **Fast tape winding in the → direction**

To stop fast tape winding



Tape direction indicator

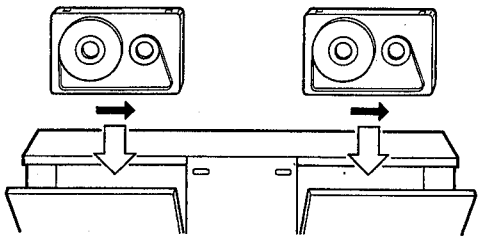
The direction in which tape is transported during playback or recording is indicated by the lighting of one of the indicators above Play keys ◄ and ►. The direction selected when the tape was stopped the last time is maintained even after the power is turned OFF, and the same direction will be set next time the power is turned ON. To change the tape transport direction, insert a tape and press the play key of the opposite direction.



■ Relay playback

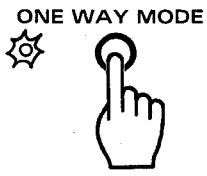
Tapes in the two decks (A and B) can be played alternately and repeatedly.

1 Insert tapes.



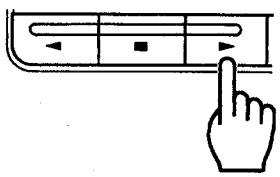
- The tapes are played in the directions indicated by their respective indicators.

2 Press the ONE WAY MODE key to ON.



- Relay playback cannot be initiated if this mode is OFF.

3 Start playback.



- The playback starts with the deck the ► key of which is pressed.

DPSS operation

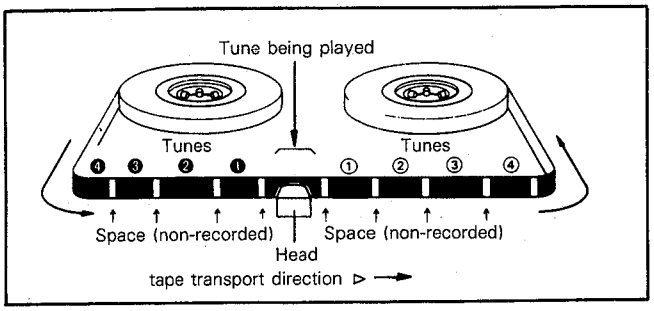
The DPSS stands for Direct Program Search System, which enables the following convenient operations (these operations are, however, not available on both decks simultaneously). The DPSS functions are based on the detection of non-recorded spaces of 4 seconds or more between tunes.

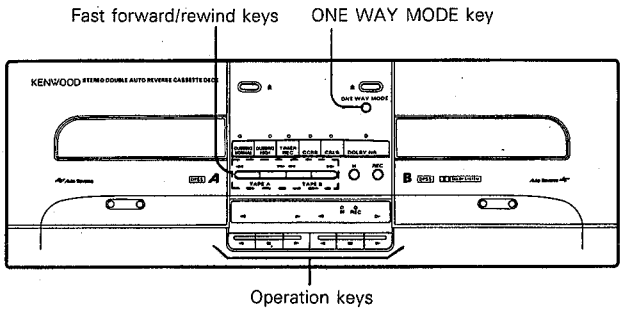
1. Skip play: By specifying a tune located several tunes beyond (or behind) the tune being played, skips tunes between the current tune and the desired tune and starts playback from the beginning of the selected tune. Up to 16 tunes can be skipped in Skip Search.

2. Rewind & Play: Rewinds the tape to the beginning and starts playback from there.

3. Single-tune repeated playback: One single tune is played back repeatedly up to 16 times.

4. Dash & Play: If a non-recorded space of more than 10 seconds is detected during playback, that space will be skipped by fast tape winding.

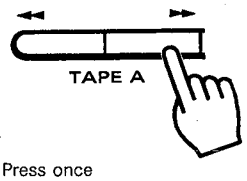




■ Skip play operation

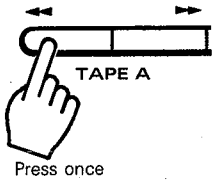
The following four examples show the cases when tape runs in the direction of ►. When tape runs in the direction of ◄, press the opposite key.

To play a tune located immediately after the tune being played



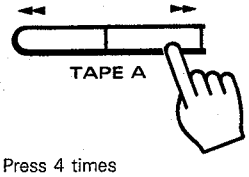
Press once
during the playback.

To play the tune being played from the beginning



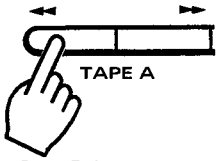
Press once
during the playback.

To play a tune located 4 tunes beyond



Press 4 times
during the playback.

To play the tune located 4 tunes behind



Press 5 times
during the playback.

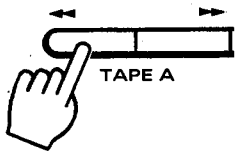
The DPSS will not function properly with the following types of tapes.

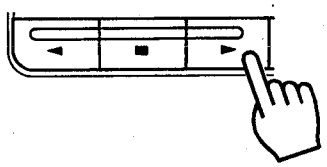
- Tapes containing spaces of 4 seconds or more, such as conversations and speeches.
- Tapes containing extremely low levels or non-recorded blanks in the middle of tunes, such as classical music.
- Tapes containing recording or large noise between tunes.
- Tapes containing spaces of less than 4 seconds between tunes.
- Tapes recorded with low recording level.
- Tapes recorded using Cross-fade recording.

■ Rewind & Play operation

This operation is not available from the remote control unit.

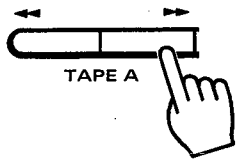
Transport direction of the tape: ►

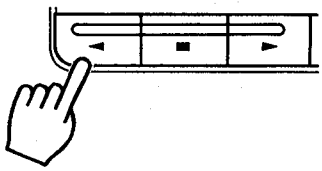




Press simultaneously.

Transport direction of the tape: ◄

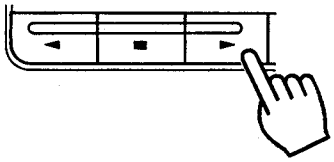




Press simultaneously.

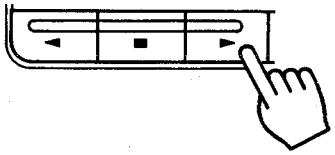
■ Single-tune repeated playback

1 **Play the tune to be repeated.**



2 **Press the play key of the same direction as the current tape transport direction.**

Transport direction of the tape: ►



- Normal playback resumes after repeating the same tune for 16 times.

■ Dash & Play operation

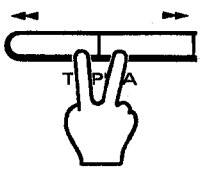
The Dash & Play skips long non-recorded spaces automatically as the tape is played.
This operation is not available from the remote control unit.

1 **Determine the playback mode (conditions).**

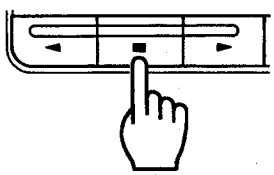
ONE WAY MODE

ON ☼ (lights up)	One side is repeated 8 times, after which playback stops.
OFF ● (goes off)	Two sides are repeated 8 times, after which playback stops.

2 **Press the ◄◄ and ►► keys simultaneously.**

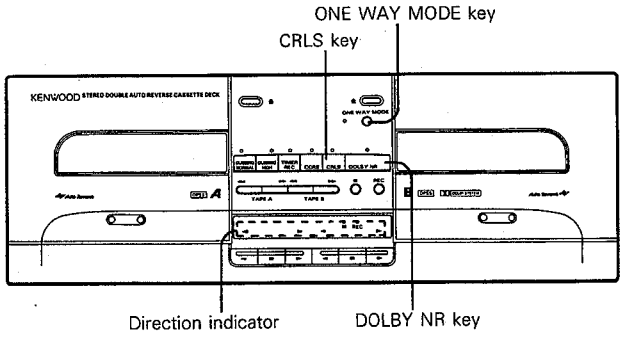


To cancel the playback above in the middle



- Playback stops.

Recording on cassette deck (Deck B only)



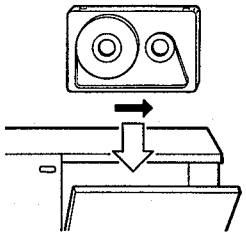
■ Preparation for recording

1 Set up the cassette deck.

① Insert a tape in Deck B.

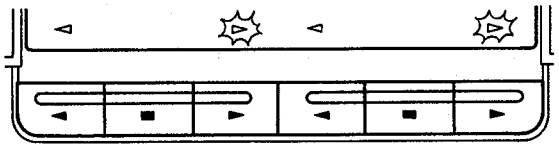
Take up the tape completely to a reel and insert it after exposing the recordable portion by feeding the leader tape portion.

- Recording on metal tapes cannot be carried out.



② Set the tape transport direction.

- Refer to page 31.

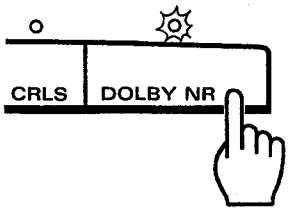


③ Select one-side or two-side recording.

ONE WAY MODE

ON (lights up)	One-side recording
OFF (goes off)	Two-side recording

④ Select the DOLBY NR mode.



ON (lights up)	
OFF (goes off)	

2 Select the source to be recorded.

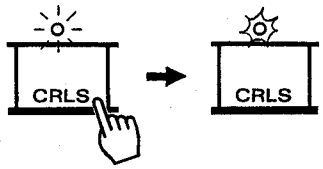
Select a music source other than TAPE.

- When the equalizer effect is required, press the EFFECT key to ON.

3 Adjust the recording level.

① Play the musical source and output its sound.

② Press the CRLS key.

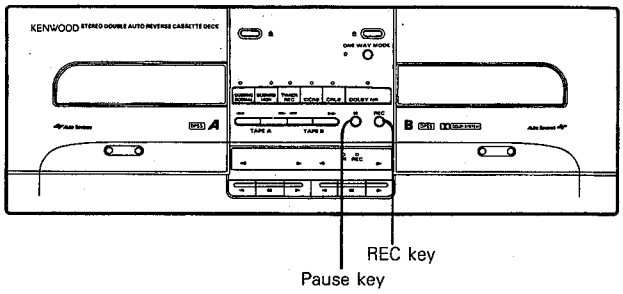


Level adjustment completes in about 20 seconds.
Wait until the indicator lights steadily.

- The deck enters the Record-Pause mode.
- When the CRLS key is pressed after the indicator has lighted up and level adjustment has completed, the search operation of CRLS restarts from that moment for 20 seconds.
- When the Recording key is pressed while the indicator is blinking, the recorded sound may be distorted. But the Recording key cannot be accepted if it is pressed within 5 seconds after the CRLS key has been pressed.
- When the CRLS key is pressed while the indicator is blinking, the level adjustment is terminated at that moment and the deck enters the Record-Pause mode. But the CRLS key cannot be accepted if it is pressed again within 5 seconds after it has been pressed.
- The recording level setting is suspended if the sound of source is not input within about 5 seconds after the CRLS key has been pressed.

4 Start recording.

Go to "Actual recording" according to the source to be recorded.



■ Actual recording

When the source is TUNER

1 Tune a station.

- Refer to page 23, 24.

2 Press the Recording key.

REC

When the source is PHONO

1 Start playing the analog disc.

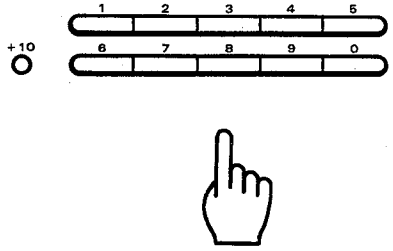
2 Press the Recording key.

REC

When the source is CD

Start recording.

Select the desired tracks with the numeric key.



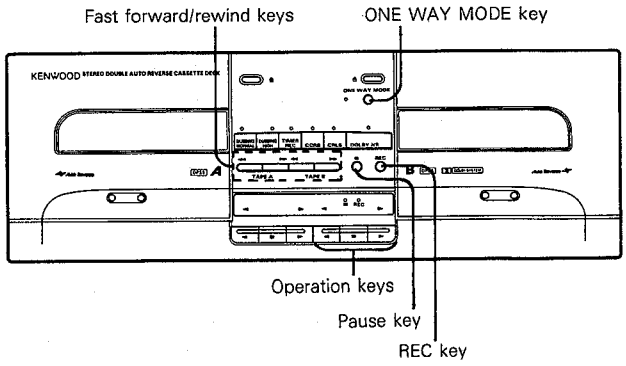
- Tape recording starts at the same time.

Note:
If recording is started while the N.B. CIRCUIT is ON, the function itself is canceled automatically. The N.B. CIRCUIT function resumes whenever the recording is stopped.

CRLS

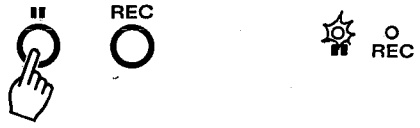
CRLS (Computer-controlled Recording Level System):
This function sets the optimum recording level automatically based on the sampling of the levels of a musical source for about 20 seconds.

- Even when you do not press the [CRLS] key..... Recording is performed with the basic recording level. The basic recording level common for all input select keys has been set at the factory.
- The level is stored in memory once it has been set..... The level determined by the [CRLS] key for each input source (TUNER, CD, PHONO, AUX) is stored in memory. From the next time, the same level is recalled for the same source and applied for recording even when the [CRLS] key is not pressed.
- To re-use the previous level after having pressed the [CRLS] key..... Press the Stop key while the CRLS indicator is blinking to re-use the previously-set level.
- When the [CRLS] key is held depressed for more than 3 seconds .... The indicator blinks at low speed then goes out. At this time, the CRLS level which has been stored for the input source being indicated returns to the basic recording level.



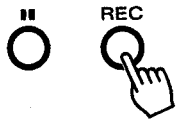
■ To Pause recording temporarily

Press the ⏸ key once.



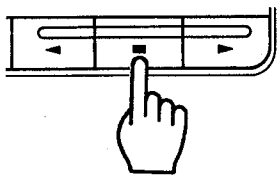
- The ⏸ indicator lights up.

To resume recording



■ To stop recording

1



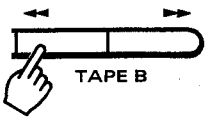
2 Stop playing the source component.

■ To re-start recording after mistake

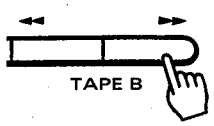
A non-recorded space of 4 seconds or more should be reserved before the position where recording was started.

1 Stop recording and rewind tape.

During recording in the ► direction:



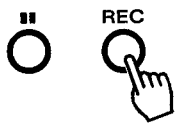
During recording in the ◄ direction:



- The recording is aborted, the tape is rewound to the position where the recording was started, and the deck enters the stop mode after leaving a non-recorded space of about 2 seconds from the end of the previous tune.

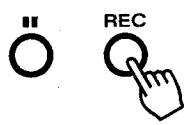
2 Re-start recording.

① Press the REC key twice.



- A non-recorded space of 4 seconds is reserved on tape, then the tape transport stops.

② Press the REC key once.



- Recording starts.

Recording of CD playback (CCRS)

The CCRS (Computer-controlled CD Recording System) makes the following convenient recordings possible by setting the optimum recording level of the specific CD to be recorded and starting recording automatically. (Recording is available only with Deck B.)

Recording of TRACK mode playback: **When the end of one tape side is reached during CCRS, fade-in/fade-out occurs there and recording is continued on the other side of tape.**

Recording of PGM mode playback: **When the end of one tape side is reached during CCRS, the tune which should end in the middle is erased, and the recording on the other side of tape is started with that tune.**

Recording by CD Editing function: **The contents of CD is edited to fit within the recording time of tape to achieve an economy of recording.**

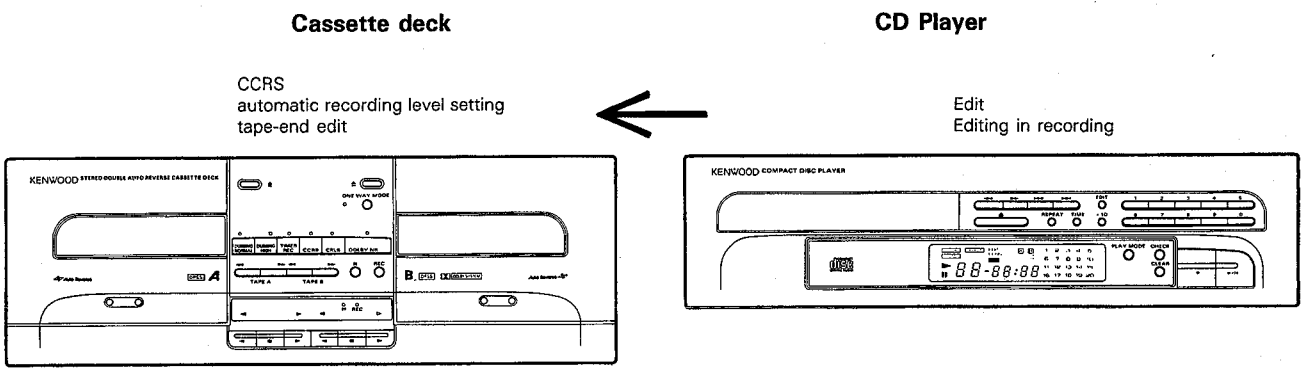
Also, refer to "Operation of CD player".

CCRS (Computer-controlled CD Recording System)

When the CCRS key is pressed, the following operations occur automatically and recording of CD starts after them.

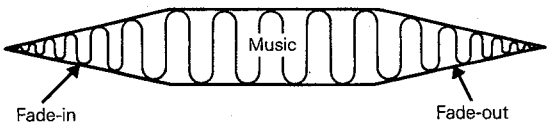
1. The CD is played and its peak level is sampled from the level used when the disc was recorded.
2. The optimum recording level for that disc is determined from the sampled peak level and the cassette deck is set accordingly.
3. The recording preparations detailed above are completed in about 70 seconds, after which actual recording starts.
4. When the recording is completed (when the CD player ends playback or when the tape has been recorded), both the cassette deck and CD player enter the stop mode.

- The set recording level is maintained while the CCRS indicators are lighted.
- The recording level is canceled when the open/close key of the CD player is pressed, or the power is turned off.



Fade-in/Fade-out

Fade-in refers to the gradual volume increase from a small level to the normal level used in beginning of music, and Fade-out refers to the gradual volume decrease from the normal level to a small level at the end of music.



■ Recording of CD playback in TRACK mode

Fade-out and fade-in occur at the end of tape where it is reversed.

1 Select CD with the input selector, and place a CD the tray.

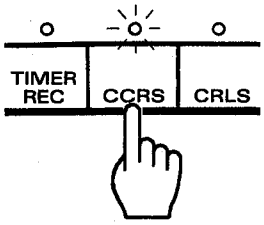
2 Set the CD player to the TRACK mode.

- Press the [PLAY MODE] key if the [PGM] indicator is lighted.

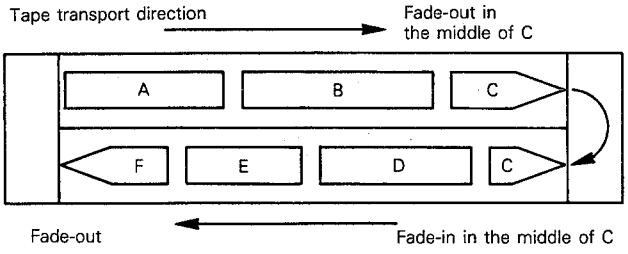
3 Set up the cassette deck ready for recording.

- Refer to step 1 on page 34.

4 Start recording.



- The CCRS is activated so the recording will start in about 70 seconds.
- The tracks on the disc are recorded in the order of the track Nos.
- The operations as shown below occur at the end of tape where it is reversed.



■ Recording of CD playback in PGM mode

Tracks are recorded so that they do not end in the middle at the end of tape.

1 Select CD with the input selector, and place a CD the tray.

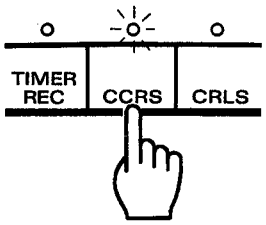
2 Program desired tracks.

- Refer to page 27.

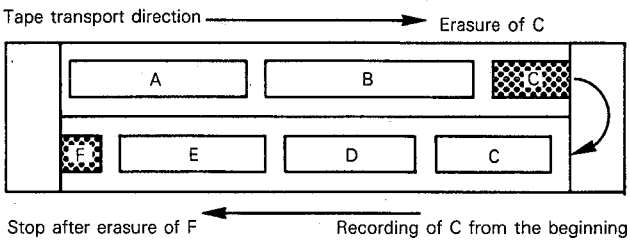
3 Set up the cassette deck ready for recording.

- Refer to step 1 on page 34.

4 Start recording.

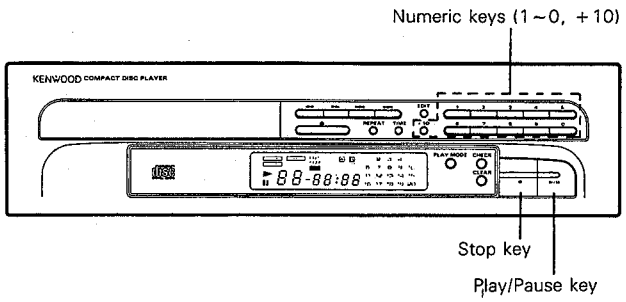


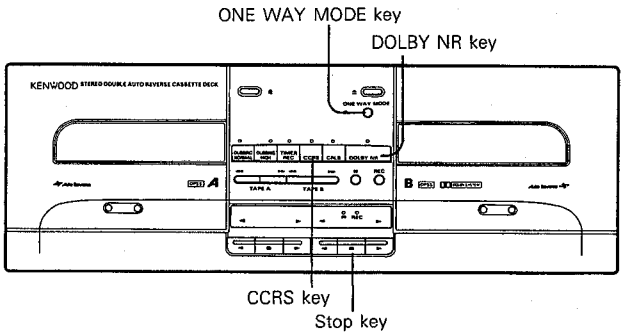
- The CCRS is activated so the recording will start in about 70 seconds.
- The tracks on the disc are recorded in the programmed order.
- The operations as shown below occur at the end of tape where it is reversed.



Notes:

1. When the [CCRS] key is pressed during CD playback, the playback is stopped and CCRS setting operation starts.
2. The tape to be recorded onto should be fully rewound and then wound passed its leader section before being inserted into the cassette holder.
3. The CCRS searches the peak level on a CD in a limited period of about 70 seconds. Therefore, it could happen that the optimum level cannot be adjusted, though it is a very rare case.
4. The recording level set by the CCRS is canceled when the [⏏] key of the CD player is pressed or the power is turned off.
5. If the length of a track on the CD is extremely long such as with a classical music, the CCRS cannot be used because the music cannot be fit in one side of tape.
6. When a CD containing continuous recording of several tracks, such as a live recording, is recorded on tape, unexpected spaces may sometimes be left automatically between tunes.
7. When the [ONE WAY MODE] key of the cassette deck is ON, the tape end processing occurs only on the A side of tape.
8. During CCRS operation, operation keys are not effective except for the Stop key of cassette decks and the Stop and Tray open/close key of CD player.





■ Edited recording of CD

1 Select CD with the input selector and place a CD the tray.

2 Set up the cassette deck ready for recording.

① **Insert a tape in Deck B.**

② **Set the tape transport direction.**

③ **Select two-side recording.**

ONE WAY MODE

OFF (goes off)	Selects both sides.

④ **Select the DOLBY NR mode.**

- By programming some tracks on the CD, the programmed tracks can be recorded with priority. If this is required, programme tracks before pressing the EDIT key in the next step.
- To change the editing contents, press the tray open/close key and restart operation from programming.

3 Activate CD editing.

① **Press the EDIT key on the CD player.**

EDIT

The playback mode is switched automatically to PGM.

② **Input the recording time of the tape.**

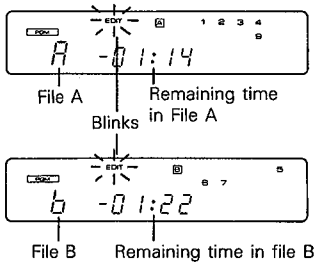
+10 1 2 3 4 5 6 7 8 9 0

Example:

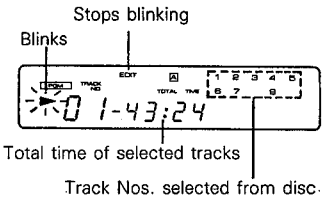
For a C-30 tape: +10 +10 +10 0

For a C-46 tape: +10 +10 +10 +10 6

During editing



Completion of editing



- The maximum number of tracks that can be edited is 20 tracks.
- Tracks are edited automatically to fit sides A and B, and the end of editing is indicated when the EDIT indicator changes from blinking to continuous lighting.

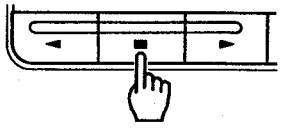
4 Start recording.

- The CCRS is activated so the recording will start in about 70 seconds.
- When the recording is completed, both the cassette deck and CD player enter the Stop mode.

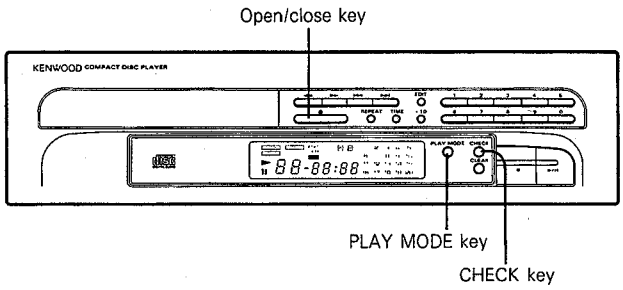
CCRS

To stop recording

Press the ■ key of the cassette deck.

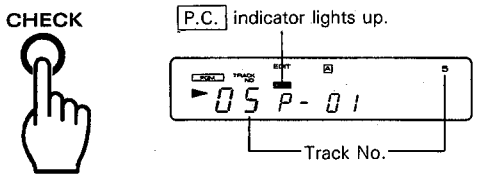


Notes:
1. Edit operation does not occur if a track No. 44 or more has been programmed.
2. Repeat playback is not available.
3. While you can edit with a different time setting to that of the tape you are using, part of the tape may be left with nothing recorded on it, or the last track on side A or side B may be cut short.



■ To check the edited contents

Press the CHECK key.

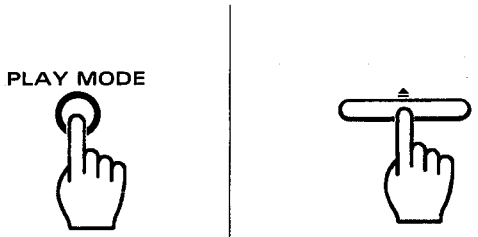


- Every time the CHECK key is pressed, the track Nos. are displayed in the edited order.

■ To clear the edited contents

Clearing all edited contents

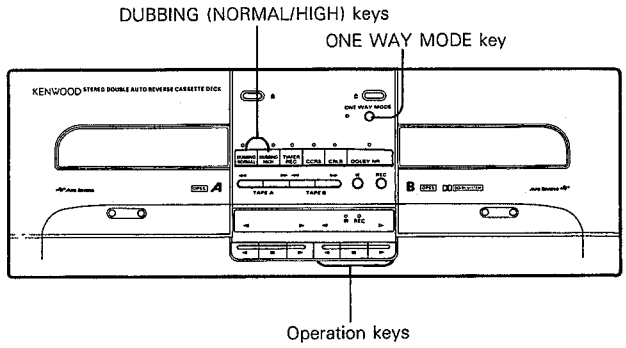
Press either of these keys.



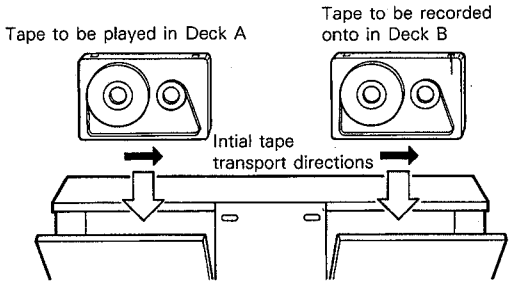
Tape dubbing

The dubbing refers to the copy of the recorded contents of a tape to another tape (tape in Deck A → tape in Deck B).

Normal-speed dubbing: Copy at normal tape speed.
High-speed dubbing: Copy at double the normal speed.

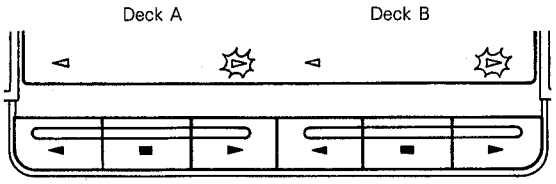


1 Insert tapes in the cassette decks.



2 Set the same tape transport direction for both decks.

- Refer to page 31.

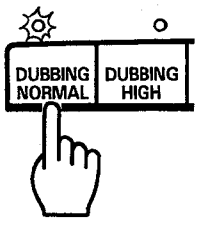


3 Select one-way or two-way dubbing mode.

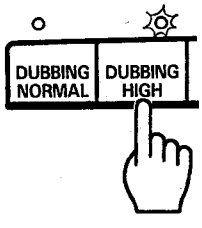
ON (lights up)	For one-way dubbing
OFF (goes off)	For two-way dubbing

4 Start dubbing.

For normal-speed dubbing

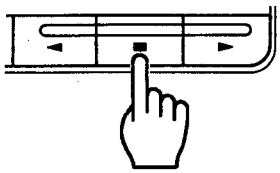


For high-speed dubbing



To stop dubbing

Press the Stop key of Deck B



- Both decks A and B enter the Stop mode.

To pause dubbing

Normal-speed dubbing: Press the NORMAL key.

High-speed dubbing: Press the HIGH key.

- Deck B enters the Record-pause mode after leaving a non-recorded space of about 4 seconds in case of normal- speed dubbing, or about 6 seconds in case of high-speed dubbing.
- To skip tunes you do not want to dub on another tape during dubbing, press the ►► key of Deck A.
- To resume dubbing after pause, press the same DUBBING key as above (NORMAL or HIGH) again.

Notes:

1. The recording level cannot be adjusted during dubbing.
2. The DOLBY NR key does not function during dubbing.
   * The tape recorded by dubbing features the same NR system as the original tape in Deck A.
3. Noise from TV may interfere with dubbed sound if high-speed dubbing is executed near a TV set. To prevent this, install the system further from the TV set.
4. If the original tape was recorded at a high level, the sound quality may be degraded if high speed dubbing is used. In such a case, use normal speed dubbing.

Operation of timer

Be sure the correct date and time are set before setting the timer.

■ Preparations

Timer reception/recording of radio broadcast

Timer reception/recording of radio broadcast ... The preparations consist of the setting of the timer ON and OFF times (and the preset station No. when receiving radio broadcast is required).

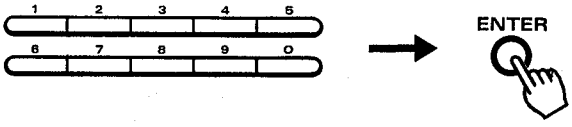
Example: Setting timer radio reception from 7:30 AM to 8:00 AM of preset station No. 3 in timer program 1.

1 Enter the program setting mode.

Press the PROGRAM 1 key. **Press the ENTER key.**

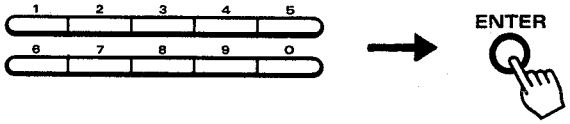
2 Input the ON time.

Press [0], [7], [3], and [0] **Press the ENTER key.**



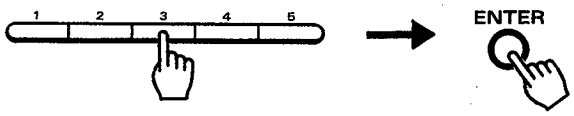
3 Input the OFF time.

Press [0], [8], [0], and [0] **Press the ENTER key.**



4 Select the preset station No.

Press [3] **Press the ENTER key.**



- The stations should be stored in the preset memory with a number of 20 or less.

Now the ON/OFF time setting is completed. Hereafter, proceed to the setting of "Reception/recording of radio station" on the next page.

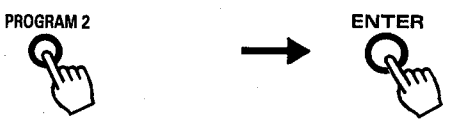
Timer playback of CD or tape

Timer playback of CD or tape ... The preparations consist of the setting of the timer ON and OFF times

Example: Setting timer CD playback from 11:00 PM to 11:30 PM in timer program 2.

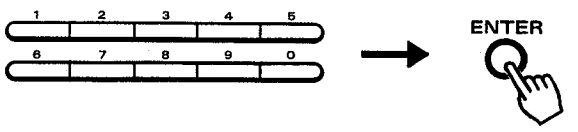
1 Enter the program setting mode.

Press the PROGRAM 2 key. **Press the ENTER key.**



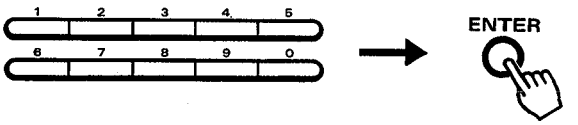
2 Input the ON time.

Press [2], [3], [0], and [0] **Press the ENTER key.**



3 Input the OFF time.

Press [2], [3], [3], and [0] **Press the ENTER key.**



4 Press the ENTER key.

Now the ON/OFF time setting is completed. Hereafter, proceed to the setting of "Playback of CD/tape" on the following pages.

- When it is required to change the ON time or OFF time, restart the procedure from the beginning of "Preparation" above.
- If a programme number which already contains a programme is selected, the programme will be replaced with the new programme content.
- Set the programmes so that their operating time ranges do not overlap.

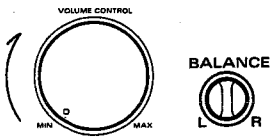
Be sure the correct date and time are set before setting the timer.

■ Receiving radio broadcast with timer

1 **Perform the preparation steps 1 to 4 described on page 42.**

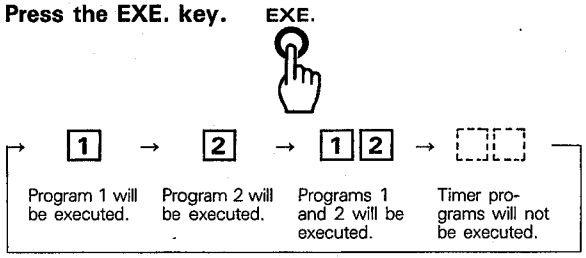
2 **Remove the CD and tapes from this unit.**

3 **Adjust the volume and balance.**



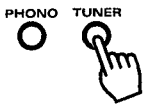
4 **Specify the execution of timer program.**

Press the EXE. key. EXE.



- Check the lighted Program No. indicator.

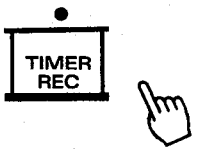
5 **Select the TUNER input.**



6 **Switch the power to STAND-BY.**

Press the POWER key

7 **The TIMER REC indicator should go off.**



To continue the reception of radio station which as been started to be received by timer ON:

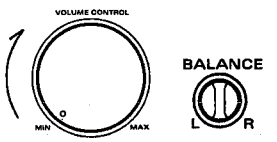
Press the EXE. key before the OFF time comes so that the program number display is extinguished. This allows to receive radio broadcasting even after the OFF time.

■ Recording radio broadcast with timer

1 **Perform steps 1 to 4 of the timer operation preparation procedure on page 42, then perform the recording preparation procedure on page 34.**

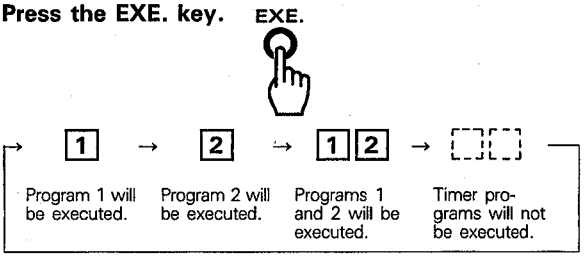
2 **Take out any CD and insert a recordable tape in deck B.**

3 **Adjust the volume and balance.**



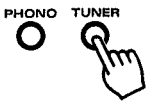
4 **Specify the execution of timer program.**

Press the EXE. key. EXE.



- Check the lighted Program No. indicator.

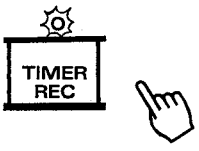
5 **Select the TUNER input.**



6 **Switch the power to STAND-BY.**

Press the POWER key

7 **The TIMER REC indicator should light up.**



Notes:

1. Do not press the EXE. key or the POWER key while the power is turned ON by the timer. Otherwise malfunction may occur.
2. Be careful that the setting time of the two programs are not overlapped.
3. When the ON time of a timer the execution of which has been specified comes during radio reception, the station being received is switched to the station set by the timer program. Use special care against this fact when you a recording radio broadcast.
4. The timer program contents cannot be cleared. Therefore, when the timer is not to be used, be sure to cancel the execution specification so that the indicators are "off".

Be sure the correct date and time are set before setting the timer.

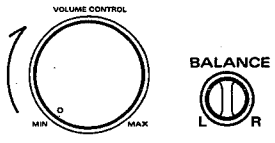
■ Playing CD with timer

1 **Perform the preparation steps 1 to 4 described on page 42.**

2 **Take out any tape and place a CD in the CD player.**

- If it is required to play the desired tracks in the desired order, program them referring to page 27.

3 **Adjust the volume and balance.**



4 **Specify the execution of timer program.**

Press the EXE. key.

→ [1] → [2] → [1][2] → [ ][ ] →

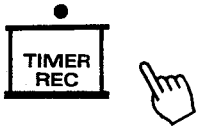
Program 1 will be executed.	Program 2 will be executed.	Programs 1 and 2 will be executed.	Timer programs will not be executed.

- Check the lighted Program No. indicator.

5 **Switch the power to STAND-BY.**

Press the POWER key.

6 **The TIMER REC indicator should go off.**



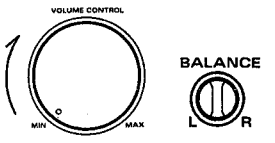
■ Playing tape(s) with timer

1 **Perform the preparation steps 1 to 4 described on page 42.**

2 **Take out any CD and insert a tape in a cassette deck.**

- Set the play mode, DOLBY NR condition and tape transport direction.

3 **Adjust the volume and balance.**



4 **Specify the execution of timer program.**

Press the EXE. key.

→ [1] → [2] → [1][2] → [ ][ ] →

Program 1 will be executed.	Program 2 will be executed.	Programs 1 and 2 will be executed.	Timer programs will not be executed.

- Check the lighted Program No. indicator.

5 **Switch the power to STAND-BY.**

Press the POWER key.

6 **The TIMER REC indicator should go off.**

To continue CD/tape playback after the power has been turned ON by the timer

Press the EXE. key before the OFF time comes so that the program number display is extinguished.

Be sure the correct date and time are set before setting the timer.

■ Checking the programme contents

To check the contents of programme 1

Press the PROGRAM 1 key.

To check the contents of programme 2

Press the PROGRAM 2 key.

- The programme contents are displayed for about 5 seconds per track, then the display returns to the previous condition.

■ Cancelling the programme execution

Press the EXE. key.

The programme number which is not to be executed should be turned off.

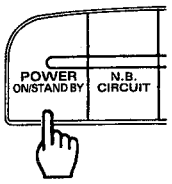
- The programme contents are not cleared even when the execution is cancelled.

■ Sleep timer

Remote control only

The sleep timer allows to turn the system power off after the specified period has elapsed. The period can be set up to 90 minutes in 10-minute steps. The sleep timer is applied in priority over the timer programs.

1 Turn the power ON.



Press the [POWER] key of the Amplifier

2 Press the key until the desired period is displayed.

Press the SLEEP key.

→ 90 → 80 → 70 → .... → 20 → 10 → Canceled

- Each press decreases the period by 10 minutes.

To activate the equipment with timer operation again

As the programmes are maintained in memory, check their contents and perform the procedure from "Specify the execution of timer program." and on.

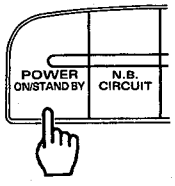
① Select the programme number to be executed by pressing the [EXE.] key.
② Adjust the volume and tone when receiving radio broadcasting or playing CD or tape.
③ Turn the power OFF.

To cancel sleep timer

Press the SLEEP key until the sleep timer is canceled.

or

Press the POWER key to turn the power off (STAND-BY).



In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Remote control unit

Symptom	Cause	Remedy
Remote control operation is not possible.	• Batteries are exhausted. • The remote control unit is too far away from the main system, controlling angle is too large, or there is an obstacle in between. • The source component to be operated does not contain the tape(s) or CD. • An attempt is made to play a tape which is being recorded in the cassette deck.	• Replace with new batteries. • Operate the remote control unit within the controllable range. • Place a tape(s) or CD in the source component to be played. • Wait until the recording is completed.

Amplifier, Graphic equalizer speakers

Symptom	Cause	Remedy
Sound is not output from any of the L/R speakers.	• The speaker cords are disconnected. • The VOLUME CONTROL is set to the minimum position. • The MUTING key of the remote control unit is set to ON. • The headphones plug is left inserted in the PHONES jack.	• Connect them properly referring to "System connections". • Adjust the volume to a proper level. • Press the MUTING key to OFF. • Remove the plug.
A hum noise is generated when the PHONO input select or key is pressed.	• The audio cord from the turntable is not inserted securely into the PHONO jacks. • The turntable is not grounded.	• Insert the audio cord plugs securely into the PHONO jacks. • Connect the grounding wire to the GND terminal on the rear panel.
Volume is too low.	• The equalizer levels are set too low. • The VOLUME CONTROL is set to the minimum position.	• Increase the levels of the equalizer level control keys. • Adjust the volume to a proper level.
Sound is not output from one of the speakers.	• The speaker cord is disconnected. • The BALANCE control is set to an extreme position.	• Connect it properly referring to "System connections". • Adjust the Left/Right balance.
Sound is not output from the surround speakers.	• The surround speaker cord is disconnected.	• Connect it properly referring to "System connections".

Cassette decks

Symptom	Cause	Remedy
Sound is not produced when the Play key is pressed.	• The head is dirty. • Tape is irregularly wound and hard to take up. • A non-recorded tape is being played.	• Clean the head referring to "Cleaning the head section". • Replace the tape. • Play a recorded tape.
The deck does not work when an operation key is pressed.	• The cassette holder is not closed completely. • The operation key was pressed immediately after closing the cassette holder. • The operation key was pressed within less than 3 seconds after the power was turned on. • Tape is not inserted. • Tape is irregularly wound and hard to take up. • Tape has been fully wound to a reel.	• Close the cassette holder completely. • Press the desired operation key in a few seconds after closing the cassette holder. • Press the desired operation key in more than 3 seconds after turning the power on. • Insert a tape. • Replace the tape. • Change the tape transport direction or insert the tape inversely.
DPSS malfunctions.	• The tape is not suitable for DPSS operation, for example the spaces between tunes are too short.	• Read "DPSS operation".
CCRS does not work.	• A recordable tape is not inserted in Deck B. • A disc is not placed in the CD player. • The disc is dirty.	• Insert a recordable tape in Deck B and press the [CCRS] key. • Place a disc in the CD player and press the [CCRS] key. • Clean the disc, place it in the CD player, and press the [CCRS] key.
The dubbing on Deck A and Deck B ends at different timing.	• This is due to the difference in tape length or to the characteristics of the cassette deck mechanisms.	• A small time difference is not regarded as a failure.
The cassette holder does not open when the Eject key is pressed.	• The key is pressed during recording or playback.	• Press in the Stop mode.
Recording is not initiated when the Recording key is pressed.	• The protection tab on the cassette has been broken. • The cassette holder is not closed completely. • The TAPE input selector is selected on the amplifier. • Tape has been fully wound to a reel.	• Use a cassette with unbroken tab, or close the hole. • Close the cassette holder completely. • Press the input select key of the source to be recorded. • Change the tape transport direction of Deck B or insert the tape inversely.
Sound is distorted.	• The recording level has not been set by the [CRLS] key. • A tape recorded with distorted sound is being played.	• Adjust the recording level referring to "Preparation for recording". • Replace the tape.
Sound is hoarse, or high frequencies are not audible.	• The head is dirty. • The tape is stretched or wrinkled.	• Clean the head referring to "Cleaning the head section". • Replace the tape.
Noise level is high.	• The head is magnetized. • External noise is induced. • A tape recorded with DOLBY NR ON is being played with DOLBY NR OFF.	• Demagnetize the head referring to "Cleaning the head section". • Install the system apart from other electrical appliances and TV set. • Press the DOLBY NR switch to ON.
Sound is vibrating.	• The capstans or pinch rollers are dirty. • Tape is irregularly wound.	• Clean the head referring to "Cleaning the head section". • Wind the tape regularly by fast forwarding, rewinding or playing it fully from one reel to another.
Recording starts when the power is turned ON.	• The [TIMER REC] key is set to ON.	• Set the [TIMER REC] key to OFF when the timer-recording function is not used.

CD player

Symptom	Cause	Remedy
Disc has been placed but it cannot be played.	• The disc is placed upside down. • The disc is very dirty. • The disc is scratched or damaged. • Dew is condensed on the optics lenses.	• Place the disc properly with the labeled side up. • Clean the disc then play it again. • Replace the disc. • Remove condensed dew by referring to "Beware of condensation".
Sound is not produced.	• Disc is not placed. • The CD player is not set in the Play mode.	• Place a disc and play it. • Press the Play/Pause key.
Sound skips.	• The disc is dirty. • The disc is scratched or damaged. • Vibrations are applied to the CD player.	• Clean the disc then play it again. • Replace the disc. • Install the system in a place which is not subject to vibrations.

Tuner

Symptom	Cause	Remedy
The clock display is blinking without changing from a certain time.	• There was a power failure. • The power cord was unplugged.	• Set the current time again. • Set the current time again.
The timer does not work.	• The current time is not set, or there was a power failure. • The timer ON time and OFF time have not been set. • The timer execution has not been specified.	• Set the current time referring to "Clock adjustment". • Set the timer ON time and OFF time. • Specify execution by pressing the EXE. key.
Radio stations cannot be received.	• No antenna is connected. • The broadcast band is not set properly. • The frequency of the desired station is not tuned.	• Connect an antenna. • Set the broadcast band properly. • Tune the frequency of the desired station.
A station which was preset cannot be received by pressing the corresponding numeric key.	• The preset station belongs to a frequency that cannot be received. • The preset memory was cleared bacause the power cord had been unplugged for a long period of time.	• Preset a station with a receivable frequency. • Preset the station again.
Interference	• Noise due to ignition noise of an automobile. • Noise due to an influence from an electric appliance. • Noise due to a nearby TV set.	• Install the outdoor antenna apart from the road. • Turn off the power of the appliance. • Install the system more apart from the TV set.

Notes:

1. With some tapes, a squeaky noise is produced when the tape is stopped automatically. This is due to the tape protection function, and not a malfunction.
2. Do not use 120-minute tapes, for the tape is too thin and gets easily tangled.
3. This system is microprocessor-controlled, so malfunction may occur due to external noise or interference noise. In such a case, unplug the power cord, plug it and turn power on again.
4. Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Specifications (For U.K. and Europe)

For the M-26 system

[Amplifier section]

Rated power output
(DIN) 1,000 Hz at 8 Ω ..... 35 W + 35 W

Total harmonic distortion at 1/2 rated power
(1 kHz, 8 Ω) 0.09%
Frequency response
AUX ..... 20 Hz ~ 40 kHz, +0 dB, −3 dB
Signal to noise ratio (IHF-A)
PHONO (MM) ..... 66 dB
AUX ..... 90 dB
Input sensitivity/Impedance
PHONO (MM) ..... 2.5 mV/47 kΩ
AUX ..... 200 mV/47 kΩ

Graphic equalizer
Center frequencies .... 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz
Control range ..... ±12 dB

[Tuner section]

FM section
Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Antenna impedance ..... 75 Ω unbalanced
Sensitivity (DIN)
MONO ..... 0.8 μV
STEREO ..... 25 μV
Total harmonic distortion (DIN at 1 kHz, 65.2 dBf input)
MONO 0.3%
STEREO 0.5%
Signal to noise ratio
(DIN weighted at 1 kHz, 65.2 dBf input)
MONO ..... 70 dB
STEREO ..... 64 dB
Selectivity (DIN ±300 kHz) ..... 64 dB
Stereo separation (DIN at 1 kHz) ..... 40 dB
Frequency response ..... 30 Hz ~ 15 kHz +0.5 dB, −2.5 dB

MW section
Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity ..... 14 μV/(500 μV/m)
Total harmonic distortion 0.5%
Signal to noise ratio ..... 49 dB

LW section
Tuning frequency range ..... 153 kHz ~ 281 kHz
Usable sensitivity ..... 20 μV
Total harmonic distortion 0.6%
Signal to noise ratio ..... 47 dB

[Cassette section]

Type ..... 4-track, 2-channel stereo

Heads
Playback/Record head ..... 1 (B deck)
Playback head ..... 1 (A deck)
Erasing head ..... 1 (B deck)
Motors ..... 1 (each deck)
Fast winding time ..... Approx. 110 seconds with C-60 tape

Frequency response (B deck)
Normal tape ..... 30 Hz to 16,000 Hz ±3 dB
CrO_2 tape ..... 30 Hz to 17,000 Hz ±3 dB

Signal to noise ratio
Dolby NR ON ..... 64 dB (Normal tape)
Dolby NR OFF ..... 54 dB (Normal tape)

Wow and flutter ..... 0.08% (W.R.M.S.)

[CD player section]

Laser ..... Semiconductor laser
Playing rotation ..... 200 rpm ~ 500 rpm (CLV)
Frequency response ..... 10 Hz ~ 20 kHz, ±1.0 dB
Signal to noise ratio ..... More than 93 dB
Total harmonic distortion ..... Less than 0.05% (at 1 kHz)
Wow and flutter ..... Unmeasurable limit

[General]

Power consumption ..... 150 W
Dimensions ..... W: 360 mm (14-3/16″)
H: 451 mm (17-3/4″)
D: 312 mm (12-5/16″)

Weight (net) ..... 10.9 kg (24.0 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Specifications (For other countries)

For the M-363 system

[Amplifier section]

Rated power output
(IHF'66) from 40 Hz to 20,000 Hz, 0.09% T.H.D. at 6 Ω ..... 35 W + 35 W
(EIAJ) Maximum useful power at 6 Ω .... 55 W + 55 W

Total harmonic distortion at 1/2 rated power
(20 Hz ~ 20 kHz, 6 Ω) 0.09%
Frequency response
AUX ..... 20 Hz ~ 40 kHz +0 dB, −3 dB
Signal to noise ratio (IHF-A)
PHONO (MM) ..... 66 dB
AUX ..... 90 dB
Input sensitivity/Impedance
PHONO (MM) ..... 2.5 mV/47 kΩ
AUX ..... 200 mV/47 kΩ
MIC ..... 1.2 mV/47 kΩ

Graphic equalizer
Center frequencies .... 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz
Control range ..... ±12 dB

[Tuner section]

FM section
Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Antenna impedance ..... 300 Ω balanced & 75 Ω unbalanced
Sensitivity (IHF) ..... 10.2 dBf (1.8 μV at 300 Ω)
50 dB quieting sensitivity
MONO ..... 16.2 dBf (3.5 μV at 300 Ω)
STEREO ..... 40.2 dBf (56 μV at 300 Ω)
Total harmonic distortion (at 1 kHz, 65.2 dBf input)
MONO 0.3%
STEREO 0.5%
Signal to noise ratio (at 1 kHz, 65.2 dBf input)
MONO ..... 78 dB
STEREO ..... 72 dB
Selectivity (IHF ±400 kHz) ..... 50 dB
Stereo separation (IHF at 1 kHz) ..... 40 dB
Frequency response ..... 30 Hz ~ 15 kHz +0.5 dB, −2.5 dB

AM section
Tuning frequency range
9 kHz step ..... 531 kHz ~ 1,602 kHz
10 kHz step ..... 530 kHz ~ 1,610 kHz
Usable sensitivity ..... 14 μV/(500 μV/m)
Total harmonic distortion 0.5%
Signal to noise ratio ..... 49 dB

[Cassette section]

Type ..... 4-track, 2-channel stereo

Heads
Playback/Record head ..... 1 (B deck)
Playback head ..... 1 (A deck)
Erasing head ..... 1 (B deck)
Motor ..... 1 (each deck)
Fast winding time ..... Approx. 110 seconds with C-60 tape

Frequency response (B deck)
Normal tape ..... 30 Hz to 16,000 Hz ±3 dB
CrO_2 tape ..... 30 Hz to 17,000 Hz ±3 dB

Signal to noise ratio
Dolby NR ON ..... 64 dB (Normal tape)
Dolby NR OFF ..... 54 dB (Normal tape)

Wow and flutter ..... 0.08% (W.R.M.S.)

[CD player section]

Laser ..... Semiconductor laser
Playing rotation ..... 200 rpm ~ 500 rpm (CLV)
Frequency response ..... 10 Hz ~ 20 kHz, ±1.0 dB
Signal to noise ratio ..... More than 93 dB
Total harmonic distortion ..... Less than 0.05% (at 1 kHz)
Wow and flutter ..... Unmeasurable limit

[General]

Power consumption ..... 150 W
Dimensions ..... W: 360 mm (14-3/16″)
H: 451 mm (17-3/4″)
D: 312 mm (12-5/16″)

Weight (net) ..... 11 kg (24.2 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

The marking of products using lasers (Except for some areas.)

The label is attached to the rear panel and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

Strömbrytarens POWER beredskapsläge

Indikatorn STAND BY tänds efter nätkabelns anslutning till ett vägguttag, oavsett strömbrytarens POWER till/frånslag.Detta anger att en liten mängd ström leds till komponenten som stöd för minnesinnehållet.
Detta läge kallas för beredskapsläget. Strömbrytaren på fjärrkontrollen kan användas för att slå på och av strömmen så länge indikatorn STAND BY lyser.

Virtanäppäimen (POWER) valmiustila (STAND BY)

Kun laitteen verkkojohto on liitetty pistorasiaan, valmiustilan merkkivalo syttyy riippumatta virtanäppäimen (POWER) asennosta (ON/OFF). Merkkivalo osoittaa, että laitteessa on hieman virtaa muistin sisältöjen ylläpitoa varten.Tätä tilaa kutsutaan valmiustilaksi. Kun valmiustilan merkkivalo (STAND BY) palaa, laitteen virta voidaan kytkeä ja katkaista kaukosäätimellä.

Afbrydertastens (POWER) STAND BY funktion

Når apparatets strømledning er tilsluttet en stikkontakt, lyser STAND BY indikatoren, uanset om der er tændt ved afbryderen på apparatet eller ej. Det angiver, at apparatet bliver forsynet med en ganske lille mængde strøm til opret-holdelse af hukommelsens indhold.
Denne funktion kaldes STAND BY. Når STAND BY indikatoren er tændt, kan strømmen til apparatet slås til og fra med fjernstyringsenheden.

PÅ/AV-knappens Stand-by funksjon

Når strømledningen til dette anlegget er satt i en vekselstrømskontakt, vil STAND-BY indikatorlampen lyse enten PÅ/AV-knappen er på-eller avslått. Dette betyr at en viss mengde strøm tilføres anlegget slik at innholdet i minnet ikke går tapt.
Denne funksjonen kalles Stand-by. Når indikatorlampen for STAND-BY er tent, kan strømmen slås PÅ/AV fra fjernkontrollen.

For the U.S.A.
FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—— Reorient or relocate the receiving antenna.
—— Increase the separation between the equipment and receiver.
—— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—— Consult the dealer or an experienced radio/TV technician for help.